864 PAN-AMERICAN MEDICAL CONGRESS.

CONGRESS ROOM.

Congress Collection

W3 PA396 1893h

24730530R

NLM 05126481 6

NATIONAL LIBRARY OF MEDICINE

HAND BOOK

....OF

THE FIRST

Pan-American Medical Congress

Washington, D. C.,
U. S. A.

SURGEON GENERAL'S OFFICE
145067
LIBRARY

September 5, 6, 7 and 8, A. D. 1893.

W3
PA396
1893h.

Film 7461 Item 3

NOTICE.

The position of Chief of the Literary Bureau has been assigned to Assistant Secretary-General Dr. John Guiteras, whose sudden call to special duty in the Marine Hospital Service led to the transfer of the Editorial work on the Hand Books to Dr. A. M. Fernandez Ybarra, of New York City, who has been appointed Executive Assistant Secretary-General.

CHARLES A. L. REED,
Secretary-General.

GENERAL SESSIONS.

ALBAUGH'S OPERA HOUSE.

TUESDAY, SEPTEMBER 5, AT 10 A. M.

(1) Prayer, by the Rt. Rev. WILLIAM PARET, D. D., Bishop of Maryland.
(2) Formal Opening of the Congress, by the President of the United States.
(3) Address of Welcome, by HON. JOHN W. ROSS, LL.D, President, Board of Commissioners, D. C.
(4) Informal Remarks, by the President of the Congress, Professor WILLIAM PEPPER, M. D., LL. D., Philadelphia, Pa.
(5) Response, (five minutes each).
    (A) On Behalf of the European Guests, by Professsor DR. FENKLER, Germany.
    (B) On Behalf of the Constituent Countries and Colonies, by representatives of
        (*a*) The Argentine Republic.
        (*b*) The British West Indies.
        (*c*) British North America.
        (*d*) Chili.
        (*e*) Costa Rica.
        (*f*) The Dominican Republic.
        (*g*) Ecuador.
(6) Report of the Secretary-General, CHARLES A. L. REED, M. D., Cincinnati, Ohio.
(7) Report of the Committee of Arrangements, by SAMUEL S. ADAMS, M. D., Chairman, Washington, D. C.
(8) Address, by Professor FRANCISCO A. RISQUEZ, M. D., Caracas, Venezuela.
(9) Adjournment.

WEDNESDAY, SEPTEMBER 6, AT 9 A. M.

(1) Prayer by Very Rev. P. J. GARRIGAN, D. D., Vice-Rector of the Catholic University of America.
(2) Remarks (five minutes each) by representatives of
        (*a*) Guatemala.
        (*b*) Haiti.
        (*c*) Hawaii.
        (*d*) Honduras.
        (*e*) Mexico.
        (*f*) Nicaragua.
        (*g*) Paraguay.
        (*h*) Peru.
        (*i*) The Republic of Colombia.
(3) Address by Professor RAFAEL LAVISTA, M. D., City of Mexico, Mexico.
(4) Announcement by the Committee of Arrangements, Dr. SAMUEL S. ADAMS, Chairman, Washington, D. C.
(5) Miscellaneous business.
(6) Adjournment.

WEDNESDAY, SEPTEMBER 6, AT 8 P. M.

SESSION HELD AT METZEROTT HALL, TWELFTH AND F STREETS.

(1) Address by the President of the Congress, Professor WILLIAM PEPPER, M. D., LL. D., Philadelphia, Pa.

THURSDAY, SEPTEMBER 7, AT 9 A. M.

(1) Prayer by Rev. GEORGE ELLIOTT, D. D.
(2) Remarks (five minutes each) by representatives of
- (*a*) Salvador.
- (*b*) Spanish West Indies.
- (*c*) United States of Brazil.
- (*d*) Uruguay.
- (*e*) Venezuela.

(3) Report of the Committee of Arrangements, by SAMUEL S. ADAMS, M. D., Chairman, Washington, D. C.
(4) Address by ERNEST HART, Esq., F. R. C. S., London, England.
(5) Miscellaneous business.
(6) Adjournment.

FRIDAY, SEPTEMBER 8, 11 A. M.

(1) Prayer, by Rev. BYRON SUNDERLAND, D. D.
(2) Address, by Professor J. B. DE LACERDA, Rio de Janeiro, U. S. of Brazil.
(3) Miscellaneous Business upon Reports Emanating from the Sections.
(4) Report of the International Executive Committee.
(5) Valedictory.
- (*a*) On Behalf of the Foreign Members, by DR. J. C. PHILLIPPO, Kingtston, Jamaica.
- (*b*) On Behalf of the European Guests, by Professor A. POLITZER, Vienna, Austria.

(6) Closing Remarks, by the President of the Congress, Professor WILLIAM PEPPER, M. D., LL. D., Philadelphia, Pa.
(7) Adjournment, *sine die*.

ENTERTAINMENTS.

TUESDAY, SEPTEMBER 5.

A reception at the Arlington from 9 to 11. (Admission by card.)

WEDNESDAY, SEPTEMBER 6.

Reception and Promenade Concert following the delivery of the Presidential Address, by Professor WILLIAM PEPPER, M. D., LL. D., at 8 p. m., at Metzerott Hall, southeast corner F and Twelfth streets, N. W. (The Metropolitan line of cars pass the door.)

THURSDAY, SEPTEMBER 7.

An Excursion on the Potomac river on board the steamer Columbia, which will leave the Seventh street wharf at 5.30 p. m. (Cable cars on Pennsylvania avenue and transfer at Seventh street.)

FRIDAY, SEPTEMBER 8.

An Excursion has been arranged for foreign members and the guests of the Congress to Chicago, *via* Baltimore, Philadelphia, New York, Boston, Albany, Saratoga, Niagara Falls, Detroit, Cincinnati and St. Louis, at which cities entertainments have been provided. The train will leave the Pennsylvania Railroad Station, Sixth and B streets, at 1.30 p. m., Friday, September 8.

COMMITTEE OF ARRANGEMENTS.

WASHINGTON, D. C.

SAMUEL S. ADAMS, M. D., *Chairman.*
J. R. WELLINGTON, M. D., *Secretary.*
G. L. MAGRUDER, M. D., *Treasurer.*

EXECUTIVE COMMITTEE:

Dr. Samuel S. Adams, Chairman; Surgeon General George M. Sternberg, U. S. A.; Surgeon General J. Rufus Tryon, U. S. N.; Supervising Surgeon General Walter Wyman, U. S. M. H. S.; Drs. S. C. Busey, G. Wythe Cook, C. H. A. Kleinschmidt, H. L. E. Johnson, Llewellyn Eliot, H. H. Barker, C. W. Richardson, W. Sinclair Bowen, George C. Ober, James D. Morgan, G. L. Magruder, J. R. Wellington, and J. Roland Walton, D. D. S.

SUB-COMMITTEES:

RECEPTION.—Dr. S. C. Busey, Chairman; Surgeon General George M. Sternberg, U. S. A.; Surgeon General J. Rufus Tryon, U. S. N.; Supervising Surgeon General Walter Wyman, U. S. M. H. S.; Drs. J. Ford Thompson, Charles E. Hagner, Louis Mackall, J. Taber Johnson, T. Morris Murray, G. Byrd Harrison, and Joseph H. Bryan.

ENTERTAINMENTS.—Dr. G. Wythe Cook, Chairman; Drs. G. N. Acker and Thomas E. McArdle.

REGISTRATION.—Dr. C. H. A. Kleinschmidt, Chairman; Drs. John S. McLain and Johnson Eliot.

RAILROADS.—Dr. H. L. E. Johnson, Chairman; Drs. E. L. Tompkins and J. Foster Scott.

PRINTING.—Dr. Llewellyn Eliot, Chairman; Drs. Thomas N. Vincent and F. B. Bishop.

HALLS AND EXHIBITS.—Dr. H. H. Barker, Chairman; Dr. J. T. Winter and C. M. Buchanan.

WAYS AND MEANS.—Dr. C. W. Richardson, Chairman; Drs. John Van Rensselaer, William Dillenback, Henry B. Deale, and William Compton.

INFORMATION.—Dr. W. Sinclair Bowen, Chairman; Drs. E. Oliver Belt and F. S. Nash.

HOTELS.—Dr. George C. Ober, Chairman; Drs. William E. Handy and D. O. Leech.

CREDENTIALS.—Dr. James D. Morgan, Chairman; Drs. C. W. Franzoni, Elmer Sothoron, C. M. Hammett, Jr., R. S. Hill, Louis Mackall, Jr., and S. J. Radcliffe.

DENTAL SURGERY.—J. Roland Walton, D. D. S., Chairman; J. B. Hodgkin, D. D. S., and H. B. Noble, D. D. S.

Section on Pedagogy.

Place of Meeting, Medical Department, Georgetown University, H St. between 9th and 10th, Upper Amphitheatre.

PROGRAMME.

Tuesday, September 5.

At 3 P. M.—The President's Address. "Medical Education in the United States."

At 4 P. M.—"The Importance of Physiological Chemistry as a part of Medical Education." By R. H. CHITTENDEN, Ph.D., Professor of Physiological Chemistry, The Sheffield Scientific School, New Haven, Conn.

At 5 P.M.—"The Importance of Bacteriological Study to Medical Students, and the Scope of Instruction." By HAROLD C. ERNST, Assistant Professor of Bacteriology in the Harvard Medical School, Boston, Mass.

Wednesday, September 6.

At the close of the General Session, 11 A. M.—"A Demonstration of the Cæsarean Section and the Porro Operations." By GUSTAV ZINKE, M. D., Cincinnati, Ohio.

At 3 P. M.—"A Contribution to a Study of Methods of Medical Education in the United States." By BAYARD HOLMES, M. D., The College of Physicians and Surgeons, Chicago, Ill.

At 4 P. M.—"Methods of Teaching Clinical Medicine." By F. C. SHATTUCK, M. D., Professor of Clinical Medicine in the Harvard Medical School, Boston, Mass.

Thursday, September 7.

At the close of the General Session, 11 A. M.—"A Demonstration with Colored Crayon, of Methods of Instruction in Anatomy and Surgery." By M. H. RICHARDSON, M. D., Assistant Professor of Anatomy in Harvard University.

At 3 P. M.—"The Methods of Medical Education." By VICTOR VAUGHAN, M. D., Ann Arbor, Michigan.

At 4 P. M.—"The Aims and Methods of Medical Education." By W. C. DABNEY, M. D., University of Virginia.

Friday, September 8.

At 11 A. M.—"The Relation of Biology to Medical Education." By W. T. SEDGWICK, Professor of Biology in the Massachusetts Institute of Technology, Boston, Mass.

At 12 A. M.—"A Demonstration of the Physiological Action of the Heart." By J. P. SAWYER, M. D., Cleveland, Ohio.

Section on General Medicine.

Place of Meeting, Albaugh's Opera House, Fifteenth and E Streets, N. W.

PROGRAMME.

Tuesday, September 5.

Hour.	Title No.	Discussion Opened By.
3 00 P. M.	43	. . . . .
3 30 P. M.	2	R. L. Miranda.
4 00 P. M.	32	Wm. Osler.
4 30 P. M.	13	C. S. Bond.
5 00 P. M.	11	J. H. Musser.
5 30 P. M.	15	Charles G. Stockton.
6 00 P. M.	38	Eliza M. Mosher.

Wednesday, September 6.

11 15 A. M.	37	J. C. Wilson.
11 30 A. M.	36	F. A. Risquez.
11 45 A. M.	10	Judson Daland.
12 20 P. M.	16	James McAusleu.
12 40 P. M.	9	D. W. Prentiss.
1 00 P. M.	52	Karl von Rusk.
3 00 P. M.	25	Manuel Carmona.
3 20 P. M.	28	Santiago Hernandez.
3 40 P. M.	27	George M. Sternberg.
4 00 P. M.	29	G. Desaussure.
4 20 P. M.	30	J. W. McLaughlin.
4 40 P. M.	22	Woods Hutchinson.
5 00 P. M.	40	F. Pryor Porcher.
5 30 P. M.	41	Luis Rozetti.

Thursday, September 7.

11 15 A. M.	42	J. B. Lacerda.
11 35 A. M.	26	Cuthbert Bowers.
12 00 M.	23	David Lobo.
12 20 P. M.	34	H. A. West.
12 40 P. M.	21	Henry Sewall.
1 00 P. M.	50	Mary G. Day.
3 00 P. M.	31	S. B. Matteo.
3 25 P. M.	35	E. L. Shurley.

Hour.	Title No.	Discussion Opened By.
3 50 P. M.	24	George Dook.
4 15 P. M.	45	J. E. Graham.
4 40 P. M.	7	N. S. Davis, Jr.
5 10 P. M.	8	J. B. Aynoti.
5 30 P. M.	46	N. Guardia.

Friday, September 8.

9 30 A. M.	33	D. D. Stewart.
10 00 A. M.	44	W. K. Vance.
10 20 A. M.	1	General.
10 40 A. M.	47	"
11 00 A. M.	48	"
11 20 A. M.	5	"
11 40 A. M.	6	"
12 00 M.	53	"
12 20 P. M.	14	"
12 40 P. M.	54	"
1 00 P. M.	51	"
1 20 P. M.	3	"
1 40 P. M.	12	"

Section on General and Orthopædic Surgery.

Place of Meeting, Columbian University, Fifteenth and H Streets, N. W., Large Hall.

PROGRAMME.

[The titles for this section of Orthopædic Surgery were incorporated at the instance of the Executive President, Dr. Vance, August 8, to the Section on General Surgery, where they appear.]

[The programme has not been furnished by the officers of this Section.]

Section on Military Medicine and Surgery.

Place of Meeting, National Museum, Ninth and B Streets, S. W., Lecture Hall.

PROGRAMME.

Tuesday, September 5.

Hour.	Title No.	Discussion Opened By.
3 00 P. M.	118	. . . . .

Wednesday, September 6.

11 15 A. M..		The address of the Executive President will first be read. Short addresses by the honorary presidents will then be in order.
12 15 P. M.	101	Drs. Nicholas Senn, Hunter McGuire, John Homans, Joseph D. Bryant, Albert Vander Veer.
3 00 P. M.	115	. . . . .
4 00 P. M.	116	. . . . .
4 30 P. M.	117	Lt. Col. Dallas Bache, Deputy Surgeon General, U. S. A.

Thursday, September 7.

11 15 A. M.	106	. . . . .
11 40 A. M.	108	. . . . .
12 00 M.	109	. . . . .
12 30 P. M.	110	. . . . .
12 50 P. M.	120	Informal discussion.
3 00 P. M.	107	. . . . .
3 30 P. M.	119	Dr. Charles B. Parker.
4 00 P. M.	105	. . . . .
4 30 P. M.	114	. . . . .
5 00 P. M.	121	Dr. A. M. Fernandez de Ybarra.

Section on Obstetrics.

Place of Meeting, Ebbitt House, Parlor D, F and Fourteenth Sts., N. W.

PROGRAMME.

Tuesday, September 5.

PREGNANCY.

Hour.	Title No.	Discussion Opened By.
3 00 P. M.	151	. . . . .
3 20 P. M.	154	. . . . .
3 40 P. M.	155	. . . . .
4 00 P. M.	185	. . . . .
4 20 P. M.	156	. . . . .
4 40 P. M.	157	After "187," Drs. Baker, of Mass., Stev-
5 00 P. M.	187	enson, of Ill., Polak, of N. Y.

Wednesday, September 6.

EUTOCIA.

11 15 A. M.	159	. . . . .
11 35 A. M.	188	. . . . .
12 00 M.	189	. . . . .
12 20 P. M.	160	. . . . .
12 40 P. M.	161	. . . . .
1 00 P. M.	162	. . . . .
3 00 P. M.	164	. . . . .
3 20 P. M.	165	. . . . .
3 40 P. M.	190	. . . . .
4 00 P. M.	186	. . . . .
4 20 P. M.	183	. . . . .
4 40 P. M.	184	. . . . .
5 00 P. M.	152	After "162" and "166" Drs. Taylor, of
5 20 P. M.	166	Ohio, Upshur, of Va., Rutherford, of R. I.

Thursday, September 7.

DYSTOCIA.

11 15 A. M.	182	. . . . .
11 35 A. M.	153	After "170" and "173," Drs. Garcia-
12 00 M.	167	diego, of Mex., Berger, of Mo., Garri-
12 20 P. M.	168	gues, of N. Y.

Hour.	Title No.	Discussion Opened By.
12 40 P. M.	191	
1 00 P. M.	170	SPECIAL DISCUSSION.
3 00 P. M.	192	
3 20 P. M.	171	After "171," Drs. Hirst, of Pa., Jewett,
3 40 P. M.	172	of N. Y., Haehnlen, of Pa.
4 00 P. M.	173	
4 20 P. M.		GENERAL DISCUSSION.
5 20 P. M.		SPECIAL DISCUSSION.

Friday, September 8.

PUERPERIUM.

9 30 A. M.	174	. . . . .
10 00 A. M.	175	. . . . .
10 30 A. M.	181	. . . . .
11 00 A. M.	176	After "180," Dr. Jewett, of N. Y.,
11 30 A. M.	177	" Scott, of Wash., D. C.
12 00 M.	178	" Opie, of Md.
12 30 P. M.	193	" Hirst, of Pa.
1 00 P. M.	180	

VOLUNTARY PAPERS AND REMARKS,
AD LIB.

Section on Gynecology and Abdominal Surgery.

Place of Meeting, Law Department National University, Thirteenth Street Between H and I.

PROGRAMME.

Tuesday, September 5.

Hour.	Title No.	Discussion Opened By.
3 10 P. M.	201 224 237	George M. Edebohls.
3 50 P. M.	135	Joseph Hoffman.
4 10 P. M.	210	Charles A. L. Reed.
4 40 P. M.	215	H. J. Boldt.
5 00 P. M.	214	Robert T. Morris.
5 15 P. M.	231 207 242	James F. W. Ross.

Wednesday, September 6.

11 15 A. M.	234 229 243	Joseph Price.
12 15 M.	218 230 244	Joseph Eastman.
1 00 P. M.	236 216 239	J. M. Baldy.
3 00 P. M.	203	M. B. Ward.
3 20 P. M.	211	L. S. McMurtry.
3 40 P. M.	202	G. M. Edebohls.
4 20 P. M.	233 250(*a*)	Joseph Taber Johnson.
5 00 P. M.	238	Nicholas San Juan.
5 20 P. M.	228	A. Vander Veer.
5 40 P. M.	226	Florian Krug.

Thursday, September 7.

Hour.	Title No.	Discussion Opened By.
11 15 A. M.	205	I. S. Stone and Charles A. L. Reed.
11 45 A. M.	209	W. E. B. Davis.
12 10 P. M.	219	Charles P. Noble.
12 30 P. M.	248 206	L. S. McMurtry.
1 05 P. M.	247	Joseph Price.
1 25 P. M.	250 221 252	J. B. Murphy.
3 00 P. M.		Joint discussion with Therapeutic and Surgical Sections.
4 30 P. M.	245	W. H. Myers.
4 50 P. M.	240	Edward P. Davis.
5 10 P. M.	208	George H. Rohé.
5 30 P. M.	249	A. F. Currier.
5 45 P. M.	222	Eugene Boise.

Friday, September 8.

9 30 A. M.	204	R. B. Maury.
9 50 A. M.	250(*b*)	Robert Morris.
10 20 A. M.	213	Titles and abstracts not furnished.
10 40 A. M.	217	
11 10 A. M.	220	
11 30 A. M.	223	
11 50 A. M.	225	
12 10 P. M.	227	
12 30 P. M.	232	

Section on Therapeutics.

Place of Meeting, Riggs' House, Fourteenth and G Sts., N. W. Parlor No. 32.

PROGRAMME.

Tuesday, September 5.

262—Address by President.

Title No. 264
Title No. 265
Title No. 267
Title No. 269
Title No. 268
Title No. 273
Title No. 275

Wednesday, September 6.

Title No. 252
Title No. 253
Title No. 258
Title No. 259
Title No. 274
Title No. 254
Title No. 256
Title No. 278
Title No. 251
Title No. 284

Discussion on "The Value of the Bath in the Treatment of Asthenic States, more particularly Typhoid Fever." To be opened by Simon Barruch, of New York.

Thursday, September 7.

Title No. 271
Title No. 272
Title No. 263
Title No. 257
Title No. 255
Title No. 277
Title No. 270
Title No. 281

Joint discussion between Sections of Therapeutics, Gynegology and Surgery upon "The Indications governing the Use of the various Anæsthetics." Referees, H. C. Wood, M. D., Philadelphia; E. E. Montgomery, M. D., Philadelphia; George Edebohls, M. D., New York; John A. Wyeth, M. D., of New York, and James F. M. Ross, M. D., New York.

Friday, September 8.

Title No. 282
Title No. 283

Section on Anatomy.

Place of Meeting, Columbian University, Academical Department, Fifteenth and H Ave., Small Hall.

PROGRAMME.

Tuesday, September 5, 3 to 6 P. M.

Call to order at 3 P. M.
Address of Executive President.
Miscellaneous Business.
301.—"Anomalies of the Larynx as seen by the Specialist;" 20 min. WM. T. CATHELL, M. D., Baltimore, Md.
306.—"The Diaphragm;" 20 min. H. E. MCINTIRE, M. D., Hudson, Wis.
342.—"Relations of the Heart and Lungs to the Anterior Chest Wall as Determined by Composite Photography;" 15 min. IRVING S. HAYNES, M. D., Ph. D., New York.
Miscellaneous Business.
Adjournment.

Wednesday, September 6; 11.15 A. M. to 1.15 P. M.

Call to order at 11.15 A. M.
Miscellaneous Business.
327.—"The Human Hand;" 20 min. GEO. WM. WEST, M. D., Washington, D. C.
308.—"Mallet Finger;" 20 min. ROBERT T. MORRIS, M. D., New York.
338.—"Surgical Anatomy of the Appendix Vermiformis, with some Anatomical Abnormalities Observed;" 10 min. R. H. PLUMMER, M. D., San Francisco, Cal.
309.—"Laws of the Growth of the Cell, applied to Human Anatomy;" 10 min. ROBERT REYBURN, M. D., Washington, D. C.
Miscellaneous Business.
Adjournment.

Wednesday, September 6; 3 to 5 P. M.

Call to order at 3 P. M.
Miscellaneous Business.
323.—"A Part of the Anatomy of the Velum Pendulum Palati; 20 min. THOS. F. RUMBOLD, M. D., San Francisco, Cal.
345.—"Case of Supernumerary Nipples, with Remarks upon, and the Literature of the Subject;" 20 min. ALBERT PICK, M. D., Manchester, N. H.
346.—"On the Zona Radiata of the Teleostean Ovum;" 20 min. Prof. JACOB REICHARD, Ann Arbor, Mich.
313.—"Nerve Anastorosis; 20 min. A. C. BERNAYS, M. D., St. Louis, Mo.
Miscellaneous Business.
Adjournment.

Thursday, September 7; 11.15 A. M. to 1.15 P. M.

Call to order at 11.15 A. M.
Miscellaneous Business.
343.—"Bone, an Organized Substance;" 15 min. GEORGE F. KOEHLER, M. D., Portland, Ore.

340.—"The Dissecting Room;" 20 min. E. W. HOLMES, M. D., Philadelphia, Pa.
344.—"Craniometric Measurements of 500 Skulls in relation to Aural Topographic Anatomy;" 20 min. B. ALEXANDER RANDALL, M. D., Philadelphia, Pa.
Miscellaneous Business.
Adjournment.

Thursday, September 7; 3 to 5 P. M.

Call to order at 3 P. M.
Miscellaneous Business
307.—"A Note on the occurrance of the Scapuloclavicular Muscle." ROBERT S. MOODY, M. D., New Haven, Conn.
311.—"On the Presence of Finguatula Rhinosia in the United States." C. W. STILAS, Ph. D., Washington, D. C.
347.—"In Teaching Comparative Anatomy and Physiology to large classes of medical students." A. P. Ohlmoche, M. D., Chicago, Ill.
Miscellaneous Business.
Adjournment.

Friday, September 8; 10 A. M. to 1 P. M.

Call to order at 10 A. M.
Miscellaneous Business.
Adjournment.

Additional papers are expected from the following:

Dr. EDWIN BENTLEY, U. S. A., Little Rock, Ark.
Dr. GEO. A. BINGHAM, Toronto, Can.
Dr. H. C. BOENNING, Philadelphia, Pa.
Dr. J. D. BRYANT, New York.
Dr. E. F. CLAPP, Iowa City, Ia.
Dr. T. G. COMSTOCK, St. Louis, Mo.
Dr. E. G. CONKLIN, Delaware, Ohio.
Dr. R. B. GILBERT, Louisville, Ky.
Dr. J. W. HARTIGAN, Morgantown, W. Va.
Dr. E. B. KENNER, St. Louis, Mo.
Dr. MIDDLETON MICHEL, Charleston, S. C.
Dr. C. S. MINOT, Boston, Mass.
Dr. JOHN C. MUNRO, Boston, Mass.
Dr. J. T. NEWMAN, New Orleans, La.
Dr. J. W. PERKINS, Kansas City, Mo.
Dr. J. B. PRICHARD, St. Louis, Mo.
Dr. D. F. RODGERS, Topeka, Kas.
Dr. E. S. STEVENS, Cincinnati, Ohio.
Dr. GEO. A. WILCOX, Augusta, Ga.
Dr. W. P. WILSON, Philadelphia, Pa.

Section on Physiology.

Place of Meeting, National University Law Department, Thirteenth St., between H and I, N. W. First Hall.

PROGRAMME.

Tuesday, September 5.

Hour.	Title.	Discussion Opened By.
3 00 P. M.	351	. . . . .
4 00 P. M.	362	. . . . .
4 30 P. M.	361	Dr. Thomas J. Mays, Dr. W. S. Carter.
5 00 P. M.	358	Informal discussion.

Wednesday, September 6.

11 15 A. M.	355	Dr. C. D. Hodge.
11 45 A. M.	366	Dr. H. G. Beyer.
12 15 P. M.	353	Dr. Wesley Mills.
12 45 P. M.	372	Dr. A. B. Macallum.
	373	Informal discussion.
3 00 P. M.	354	Dr. E. T. Reichert.
3 30 P. M.	357	Dr. J. G. Hernandez.
4 00 P. M.	356	Dr. W. G. Thompson.
4 30 P. M.	363	Informal Discussion.

Thursday, September 7.

11 15 A. M.	367	Dr. W. A. Thom, Jr.
11 45 A. M.	369	Dr. Samuel Wolfe.
12 15 P. M.	370	Dr. A. P. Brubaker.
3 00 P. M.	371	Informal discussion.
3 30 P. M.	360	Dr. R. H. Chittenden.
4 00 P. M.	359	Informal discussion.

Friday, September 8.

9 30 A. M.	368	Dr. E. T. Reichert.
10 00 A. M.	352	Informal discussion.
10 30 A. M.	364	" "
10 45 A. M.	374	" "

Section on Diseases of Children.

Place of Meeting, The Arlington, Ladies' Parlor, No. 1.

PROGRAMME.

Tuesday, September 5.

Title No. . . . . 424 . . . . . .
Title No. . . . . 401 H. R. Wharton, M. D.
Title No. . . . . 410 W. D. Booker, M. D.
Title No. . . . . 419 Discussion on Prevention and Municipal Control, opened by E. O. Shakespeare, M. D.

Wednesday, September 6.

Title No. . . . . 429 . . . . . .
Title No. . . . . 411 . . . . . .
Title No. . . . . 408 . . . . . .
Title No. . . . . 426 . . . . . .
Title No. . . . . 414 . . . . . .
Title No. . . . . 417 . . . . . .

Thursday, September 7.

Title No. . . . . 406 . . . . . .
Title No. . . . . 421 . . . . . .
Title No. . . . . 422 . . . . . .
Title No. . . . . 407 . . . . . .
Title No. . . . . 402 . . . . . .
Title No. . . . . 427 . . . . . .
Title No. . . . . 420 . . . . . .
Title No. . . . . 415 . . . . . .
Title No. . . . . 413 . . . . . .
Title No. . . . . 425 . . . . . .
Informal discussion on Gastro-Intestinal Disease.
Title No. . . . . 409 Informal discussion on Local Treatment in Gastro-Intestinal Disease.

Friday, September 8.

Title No. . . . . 405 Discussion on the Production and Preservation of Milk, opened by E. F. Brush, M. D.
Title No. . . . . 418 . . . . . .
Title No. . . . . 412 . . . . . .
Title No. . . . . 403 . . . . . .
Title No. . . . . 428 . . . . . .
Title No. . . . . 423 . . . . . .
Informal discussion on Infant Feeding.

Section on Pathology.

Place of Meeting, Medical Department, University of Georgetown, H Street, between Ninth and Tenth, N. W.

PROGRAMME.

Tuesday, September 5.

Hour.	Title No.	Discussion Opened By.
	465	Amadeo—Yellow Fever.
	464	Amadeo—Med. Geography of Puerto Rico.
	461	Acosta, on Rabies in Cuba.

Wednesday, September 6.

		Demonstration Micro Photography, Army Medical Museum, by Dr. Gray.
3 00 P. M.	468	Dr. Matos, on Inflammation.
3 50 P. M.	463	Dr. Welch, Influence of Rattlesnake poison on bactericide power of blood.
4 00 P. M.	452	Dickson Bruns, examination of urine and sputa.
	455	R. Guiteras, Influenza.
	471	Cattell, Asylums for feeble-minded.

Thursday, September 7.

Demonstration of Methods in Histology, by Dr. Reeves.

Demonstration of Methods in Bacteriology, by Dr. Kinyoun.

Friday, September 8.

462	Smith, on Cancer.
472	McFarland, on Cancer.
469	Lacerda, on Beri-beri.
470	Amadeo, on Malaria.

Section on Ophthalmology.

Place of Meeting, The Arlington, Vermont Avenue and H Street, N. W., Parlor A.

PROGRAMME.

[The programme has not been furnished by the officers of this Section.]

Section on Laryngology and Rhinology.

Place of Meeting, The Arlington, Parlors D and E.

PROGRAMME.

Tuesday, September 5.

Hour.	Title No.	Discussion Opened By.
3 00 P. M.		President's Address.
3 15 P. M.	552	Discussion after No. 563.
3 30 P. M.	582	" " "
3 45 P. M.	563	John N. Mackenzie, Baltimore.
4 40 P. M.	554	Edward O. Clyer, Buenos Ayres.
5 15 P. M.	580	N. E. Casselberry, Chicago.

Wednesday, September 6.

11 20 A. M.	560	James E. Newcomb, New York.
11 50 A. M.	555	Discussion after No. 589.
12 00 M.	589	S. Solis Cohen, Philadelphia.
12 30 P. M.	570	Alex. McCay, Philadelphia.
3 00 P. M.	567	Carron Flemming, Anne Arbor, Mich.
3 20 P. M.	574	Robert Levy, Denver, Col.
3 30 P. M.	577	H. Holbrook Curtis, New York.
4 00 P. M.	588	D. Bryson Delevan, New York, and W. H. Daly, Pittsburg, Pa.
5 00 P. M.	569	Informal Discussion.

Thursday, September 7.

11 15 A. M.	586	Informal Discussion.
11 30 A. M.	573	W. C. Glasgow, St. Louis.
12 00 M.	575	Discussion following No. 585.
12 15 P. M.	585	John O. Roe, Rochester, N. Y.
12 40 P. M.	562	Informal Discussion.
3 00 P. M.	558	Discussion following No. 584.
3 10 P. M.	576	" " "
3 40 P. M.	584	C. C. Rice, New York.
4 00 P. M.	551	Informal Discussion.
4 15 P. M.	556	" "
4 30 P. M.	587	J. Solis Cohen, Philadelphia, and Arthur G. Hobbs, Atlanta, Ga.

Friday, September 8.

9 30 A. M.	583	J. E. Baylan, Cincinnati.
10 00 A. M.	572	C. E. Bean, St. Paul.
10 35 A. M.	568	W. John Harris, St. Louis
11 00 A. M.	571	Informal Discussion.
11 15 A. M.	564	" "
11 30 A. M.	565	" "
11 45 A. M.	559	" "

Section on Otology.

Place of Meeting, The Arlington, Ladies' Parlor, No. 3.

PROGRAMME.

Tuesday, September 5.

Title No.	1101a	
Title No.	1115	Informal discussion.
Title No.	1103	" "
Title No.	1106	Dr. H. McHatton, Macon, Ga.

Wednesday, September 6.

Title No.	1102	Informal discussion.
Title No.	1107	Dr. S. S. Bishop, Chicago, Ill.
Title No.	1110	Informal discussion.
Title No.	1105	Discussion after No. 1118.
Title No.	1101	" " " "
Title No.	1104	" " " "
Title No.	1112	" " " "
Title No.	1113	" " " "
Title No.	1114	" " " "
Title No.	1118	Dr. C. R. Holmes, Cincinnati, O.

Thursday, September 7.

Title No.	1116	Informal discussion.
Title No.	1108	" "
Title No.	1119	" "
Title No.	1111	" "
Title No.	1109	" "
Title No.	1117	" "

Section on Dermatology and Syphilography.

Place of Meeting, Riggs' House, Fifteenth and G Sts., N. W. Parlor No. 27.

PROGRAMME.

Tuesday, September 5.

Hour.	Title.	Discussion Opened By.
3 00 P. M.	601a	. . . . .
3 45 P. M.	603	. . . . .
4 30 P. M.	607	Informal discussion.

Wednesday, September 6.

11 15 A. M.	608	. . . . .
12 00 M.	609	Informal discussion.
3 00 P. M.	611	. . . . .
3 30 P. M.	614	. . . . .
4 15 P. M.	610	. . . . .
5 00 P. M.	618	Informal discussion.
5 20 P. M.	619	. . . . .

Thursday, September 7.

11 15 A. M.	602	. . . . .
11 45 A. M.	605	. . . . .
12 15 P. M.	613	. . . . .
1 00 P. M.	616	. . . . .
1 30 P. M.	612	Informal discussion.
3 00 P. M.	604	. . . . .
3 45 P. M.	617	. . . . .
4 15 P. M.	615	. . . . .
4 45 P. M.	601	. . . . .
5 15 P. M.	620	. . . . .

Friday, September 8.

9 30 A. M.	621	. . . . .
10 30 A. M.	622	. . . . .

Sections of Hygiene, Climatology and Dermography, and Marine Hygiene and Quarantine.

Place of Meeting, Grand Army Hall, 1412 Pennsylvania Avenue, N. W.

PROGRAMME.

Tuesday, September 5.

Hour.	Title No.	Hour.	Title No.
3 15 P. M.	673	4 15 P. M.	656
3 45 P. M.	701	4 45 P. M.	688

Wednesday, September 6.

11 20 A. M.	651–654	3 20 P. M.	674
11 50 A. M.	658	3 40 P. M.	682
12 10 P. M.	661	4 00 P. M.	667–670
12 30 P. M.	681	4 30 P. M.	663
12 40 P. M.	672	4 40 P. M.	671
12 50 P. M.	655	5 00 P. M.	665
3 00 P. M.	652	5 20 P. M.	660

Thursday, September 7.

11 20 A. M.	678	3 00 P. M.	679
11 40 A. M.	659	3 20 P. M.	680
12 00 M.	675	3 30 P. M.	712
12 10 P. M.	653	3 40 P. M.	701
12 20 P. M.	657	4 00 P. M.	702
12 30 P. M.	669	4 10 P. M.	703–710
	4 20 P. M.	713	

Friday, September 8.

9 30 A. M.	662	10 30 A. M.	684
9 50 A. M.	666	10 50 A. M.	677
10 10 A. M.	683	11 10 A. M.	668
	11 30 A. M.	676	

Through the courtesy of the **Surgeon-General of the Navy** and the **Director-in-charge** of the **U. S. Naval Museum of Hygiene,** 1707 New York Avenue, N. W., this building will be open for inspection by members of the Congress from 10 a. m. to 4 p. m. daily, on Wednesday, Thursday and Friday—6th, 7th and 8th of September.

Diseases of the Nervous System and the Mind.

Place of Meeting, The Arlington, New Reception Room.

PROGRAMME.

Tuesday, September 5.

Title No. . . . . 801a . . . . . .
Title No. . . . . 826 Dr. Wm. A. Hammond, Washington, D. C.
Title No. . . . . 801 Dr. Manuel Carmona, of Valle, City of Mexico, Mexico.
Title No. . . . . 803 Dr. Daniel Guiterrez, Cali, Cauca, Colombia.
Title No. . . . . 819 Dr. Chas. R. Mills, Philadelphia.
Title No. . . . . 817 Dr. Weir Mitchell, "
Title No. . . . . 805 Dr. H. N. Moyer, Chicago.

Wednesday, September 6.

Title No. . . . . 815 . . . . . .
Title No. . . . . 827 Dr. E. C. Seguin, New York City.
Title No. . . . . 828 Dr. E. C. Spitzka, " " "
Title No. . . . . 807 Dr. L. C. Gray, " " "
Title No. . . . . 832 Informal.
Title No. . . . . 830 Dr. G. Kierman, Chicago.
Title No. . . . . 813 Dr. Wm. A. Hammond, Washington.
Title No. . . . . 823 Dr. B. Sachs, New York.
Title No. . . . . 811 Dr. M. Allan Stair, New York.
Title No. . . . . 822 Dr. Gonzales Echeverria, Key West, Fla.
Title No. . . . . 824 Dr. S. G. Webster, Boston.
Title No. . . . . 825 Dr. D. R. Brown, Chicago.
Title No. . . . . 816 Informal.

Thursday, September 7.

Title No. . . . . 802 Dr. Gracini M. Hammond.
Title No. . . . . 809 Dr. J. T. Eskridge, Denver, Col.
Title No. . . . . 808 Dr. J. G. Reed, Elmwood Place, Ohio.
Title No. . . . . 831 Dr. C. H. Hughes, St. Louis.
Title No. . . . . 812 Dr. D. T. Crothers, Hartford, Conn.
Title No. . . . . 804 . . . . . .
Title No. . . . . 810 Dr. P. R. Thombs, Pueblo, Colo.
Title No. . . . . 820 Dr. Jno. Punton, Kansas City, Mo.
Title No. . . . . 806 Dr. Henry M. Hurd, Baltimore.
Title No. . . . . 825 Dr. Frank C. Hoyt, Clarinda, Tenn.
Title No. . . . . 814 Informal.
Title No. . . . . 818 . . . . . .
Title No. . . . . 829 Informal.

Section on Oral and Dental Surgery.

Place of Meeting, Law Department, National University, 13th Street between H and I Streets, N. W., Third Hall.

PROGRAMME.

[The programme has not been furnished by the officers of this Section.]

Section on Medical Jurisprudence.

Place of Meeting, Ebbitt House, 14th and F Streets, N. W., Red Parlor.

PROGRAMME.

[The programme has not been furnished by the officers of this Section.]

Section on Railway Surgery.

Place of Meeting, The Cochran, Fourteenth and K Streets, N. W.

PROGRAMME.

Tuesday, September 5.

Hour.	Title No.	
3 30 P. M.	1001a	. . . . .
4 00 P. M.	1001	. . . . .
5 00 P. M.	1002	. . . . .

Wednesday, September 6.

11 30 A. M.	1003	. . . . .
12 30 P. M.	1004	. . . . .
3 30 P. M.	1005	. . . . .
4 30 P. M.	1006	. . . . .

Thursday, September 7.

11 30 A. M.	1007	. . . . .
12 30 P. M.	1008	. . . . .
3 30 P. M.	1009	. . . . .
4 30 P. M.	1010	. . . . .
5 30 P. M.	1011	. . . . .

Friday, September 8.

10 00 A. M.	1012	. . . . .
11 00 A. M.	1013	. . . . .

Section on Pharmacology.

Place of Meeting, The Arno, Sixteenth Street, between I and K Streets, N. W.

PROGRAMME.

[The programme has not been furnished by the officers of this Section.]

AVIL CO.
PRINTERS
LITHOGRAPHERS

OFFICE OF THE PERMANENT SECRETARY
OF THE AMERICAN MEDICAL ASSOCIATION,
Philadelphia, June 4, 1891.

To the Medical Profession of the Western Hemisphere:

At the meeting of the AMERICAN MEDICAL ASSOCIATION, held at Washington, May 5th, 1891, DR. CHARLES A. L. REED, of Cincinnati, introduced the following:

Resolved, That the American Medical Association hereby extends a cordial invitation to the Medical Profession of the Western Hemisphere, to assemble in the United States in an Inter-Continental American Medical Congress.

Resolved, That the Committee on Nominations be, and is hereby instructed to nominate one member for each State and Territory, and one each from the Army, Navy, and Marine Hospital Service, who shall constitute a committee, which is hereby instructed to effect a permanent organization of the proposed Inter-Continental American Medical Congress, and to determine the time and place at which the same shall be held.

The resolutions were seconded by Dr. Wm. H. Pancoast and others, and unanimously adopted.

Pursuant to the foregoing, the following Committee was nominated and elected:

ALA.—W. H. Sanders, M. D.
ARIZ.—Henry A. Hughes, M. D.
ARK.—Ed. Bentley, M. D.
CAL.—W. R. Cluness, M. D.
COLO.—Wm. A. Campbell, M. D.
CONN.—C. A. Lindsley, M. D.
DEL.—C. H. Richards, M. D.
D. C.—D. W. Prentiss, M. D.
FLA.—C. R. Oglesby, M. D.
GA.—J. McFadden Gaston, M. D.
IDAHO.—Geo. P. Haley, M. D.
ILL.—N. S. Davis, M. D.
IND.—A. M. Owen, M. D.
IOWA.—B. H. Criley, M. D.
KAN.—J. E. Minney, M. D.
KY.—J. N. McCormack, M. D.
LA.—Stanford E. Chaillé, M. D.
MAINE.—Hampton E. Hill, M. D.
MD.—Geo. H. Rohé, M. D.
MASS.—Augustus P. Clarke, M. D.
MICH.—C. Henri Leonard, M. D.
MINN.—P. H. Millard, M. D.
MISS.—W. T. Kendall, M. D.
MO.—I. N. Love, M. D.
MONT.—Thos. J. Murray, M. D.
NEB.—R. C. Moore, M. D.
NEV.—P. J. Aiken, M. D.
N. H.—Irving A. Watson, M. D.
N. J.—E. J. Marsh, M. D.
NEW MEX.—C. E. Winslow, M. D.
N. Y.—John Cronyn, M. D.
N. C.—H. Longstreet Taylor, M. D.
N. D.—E. M. Darrow, M. D.
OHIO.—Charles A. L. Reed, M. D.
OREGON.—Wm. Boys, M. D.
PA.—Wm. Pepper, M. D.
R. I.—Geo. L. Collins, M. D.
S. C.—R. A. Kinloch, M. D.
S. D.—J. W. Freeman, M. D.
TENN.—J. R. Buist, M. D.
TEX.—J. W. Carhart, M. D.
UTAH.—F. S. Bascom, M. D.
VT.—H. D. Holton, M. D.
VA.—J. S. Wellford, M. D.
WASH.—J. M. Morgan, M. D.
W. VA.—J. H. Brownfield, M. D.
WIS.—J. T. Reeve, M. D.
WYO.—J. H. Finfrock, M. D.
U. S. A.—.....
U. S. N.—.....
U. S. M. H. S.—J. B. Hamilton, M. D.

WM. T. BRIGGS, M. D., PRESIDENT.

WILLIAM B. ATKINSON, M. D., PERMANENT SECRETARY.

REPORT.

To Dr. Hunter McGuire,

President of the American Medical Association,

Richmond, Virginia.

Dear Doctor:—On behalf of the Committee appointed by the American Medical Association, May 5th, 1891, "to effect a permanent organization of an Inter-Continental American Medical Congress," I beg leave to report that the work has been prosecuted as diligently as possible. A series of regulations, hereby submitted, has been adopted and an organization in accordance therewith has been effected, in some degree, in all of the constituent countries except Paraguay. In several countries the organization has been completed in accordance with the regulations, while in some instances full lists of Secretaries have been secured; in others, Honorary Chairmen only have been furnished, while in still others the organization has not advanced beyond the appointment of a member of the International Executive Committee. The lists of officers are, however, sufficiently complete to furnish channels through which the necessary preliminary correspondence of the Sections may be inaugurated. In view of this, and the additional fact that a considerable time is necessary for the interchange of letters with some of the remoter countries, the Committee deems it expedient to submit for promulgation this Preliminary Announcement of the Congress.

The Committtee entertains the hope that the organization may be completed in each of the constituent countries, in accordance with the Regulations, before the meeting of the Congress.

Respectfully submitted on behalf of the Committee.

CHARLES A. L. REED,

Chairman of the Committee on Permanent Organization.
and Secretary-General of the Congress.

Cincinnati, September 5th, 1892.

Richmond, Va., October 6th, 1892.

Dr. Charles A. L. Reed,

Chairman of the Committee on Permanent Organization
of the Pan-American Medical Congress.

Dear Doctor:

I am in receipt of the report of the Committee on Organization of the Pan-American Medical Congress transmitting the Preliminary Announcement of the Organization. Permit me to state that I am gratified to note the completeness of the work which has already been accomplished by your Committee, and that, for the reasons stated in your letter, I deem the immediate publication of the preliminary announcement imperative to the success of the Congress.

With the assurance that the American Medical Association will do all in its power to promote the interests of the meeting at Washington in September of next year.

Very sincerely yours,

Hunter McGuire,

President of the American Medical Association.

By the Congress of the United States.

JOINT RESOLUTION

To authorize the President to invite certain governments to send delegates to the Pan-American Medical Congress.

A Joint Resolution was unanimously adopted by the Senate June 3, 1892, concurred in by the House of Representatives July 14, 1892, and approved July 18, 1892, by which the President was authorized and requested to invite the several governments of the Western Hemisphere to send official delegates to the meeting of the Pan-American Medical Congress to be held in the city of Washington, September fifth sixth, seventh and eighth, anno Domini eighteen hundred and ninety-three.

GENERAL REGULATIONS.

TITLE.

1. This organization shall be known as THE PAN-AMERICAN MEDICAL CONGRESS, and shall meet once in———years.

MEMBERSHIP.

2. Members of the Congress shall consist of such members of the medical profession of the Western Hemisphere, including the West Indies and Hawaii, as shall comply with the special regulations regarding registration, or who shall render service to the Congress in the capacity of Foreign Officers.

OFFICERS.

3. The Executive Officers of the Congress shall be residents of the country in which the Congress shall be held, and shall consist of one President, such Vice-Presidents as may be determined by special regulations, one Treasurer, one Secretary-General, and one Presiding Officer and necessary Secretaries for each section, all of whom shall be elected by the Committee on Organization, and there shall be such Foreign Vice-Presidents, Secretaries and Auxiliary Committees as are hereinafter designated.

THE COMMITTEE ON ORGANIZATION.

4. The Committee on Organization shall be appointed by the representative medical association of the country in which the Congress shall meet. This committee shall select all domestic officers of the Congress, and shall at its discretion confirm all nominations by members of the International Executive Committee and in the event that any member of the International Executive Committee shall fail to nominate by the time specified by special regulation, the Committee on Organization shall elect officers for the country thus delinquent. It may appoint Vice-Presidents and Auxiliary Committeemen in foreign countries independently of nominations by the members of the International Executive Committee. It shall appoint Auxiliary Committees, arrange for the meeting, and frame special regulations for the session of Congress for which it was appointed. It shall make a report of its transactions to the opening session of the Congress.

THE INTERNATIONAL EXECUTIVE COMMITTEE.

5. There shall be an International Executive Committee which shall be appointed by the first Committee on Organization and which shall consist of one member for each constituent country. This Committee shall hold permanent tenure of office except that when a member shall fail to be present at a meeting of the Congress, his office shall be declared vacant and the vacancy be filled by election held by the registered members from the country from which he was accredited. In the event of no representation whatever from the country in question, the members of the International Executive Committee present, shall determine what disposition shall be made of the office.

It shall be the duty of each member of the International Executive Committee to nominate from the medical profession of his country, one Vice-President for the Congress and one Secretary for each Section of the Congress, and to forward the same to the Chairman of the Committee on Organization; except that in any country in which the Congress shall meet, it shall be the duty of the member of the International Executive Committee for that country to request his representative national medical association to appoint a Committee on Organization, which Committee on Organization shall discharge the duties designated in Regulation IV. Members of the International Executive Committee shall also nominate such Auxiliary Committees, and shall furnish such information as the Committee on Organization may request.

INCORPORATION.

6. The Committee on Organization may at its discretion cause the Congress to be incorporated, which incorporation shall hold only until the final disbursement of funds for the session held in that particular country. In the event of such incorporation such additional officers shall be elected and in such manner as may be required by law.

CONSTITUENT COUNTRIES.

7. The following shall be considered as the constituent countries of the Pan-American Medical Congress:

Argentine Republic, Bolivia, Brazil, British North America, British West Indies (including B. Honduras), Chile, Dominican Republic, Honduras (Sp.), Mexico, Nicaragua, Paraguay, Peru, Salvador, Republic of Colombia, Republic of Costa Rica, Ecuador, Guatemala, Haiti, Kingdom of Hawaii, Spanish West Indies, United States, Uruguay, Venezuela, Danish, Dutch and French West Indies.

SECTIONS.

8. The Sections of the Congress shall be as follows:

(1) General Medicine, (2) General Surgery, (3) Military Medicine and Surgery, (4) Obstetrics, (5) Gynæcology and Abdominal Surgery, (6) Therapeutics, (7) Anatomy, (8) Physiology, (9) Diseases of Children, (10) Pathology, (11) Ophthalmology, (12) Laryngology and Rhinology, (13) Otology, (14) Dermatology and Syphilography, (15) General Hygiene and Demography, (16) Marine Hygiene and Quarantine, (17) Orthopædic Surgery, (18) Diseases of the Mind and Nervous System, (19) Oral and Dental Surgery, (20) Medical Pedagogics, (21) Medical Jurisprudence, (22) Railway Surgery.

LANGUAGES.

9. The languages of the Congress shall be Spanish, French, Portuguese and English.

AUXILIARY COMMITTEES.

10. The Auxiliary Committee shall consist of one member for each medical society or one for each considerable center of population in each of the constituent countries of the Congress. Nominations for the Foreign Auxiliary Committee shall be made to the Chairman of the Committee on Organization by the members of the International Executive Committee, each for his own country, except that in the country in which the Congress is to be held nominations shall be made by the Committee on Organization. Appointments on the Auxiliary Committee shall hold only for the meeting for which they were made.

Members of the Auxiliary Committee shall be the official representatives of the Congress in their respective localities. It shall be their duty:

(1) To transmit to the profession of their respective districts all information relative to the Congress forwarded to them for that purpose by the General Officers.

(2) To co-operate with the Officers of Sections in securing desirable contributions to the proceedings of the Congress.

(3) To furnish to the General Officers such information as they may request for the purpose of promoting the interests of the Congress.

(4) To cause such publicity to be given to the development of the organization as will elicit the interest of the profession and secure attendance upon the meeting; and they shall discharge such other duties as will promote the welfare of the Congress.

AMENDMENTS.

11. Amendments to these Regulations can be made only by the International Executive Committee, on a majority vote, ten members constituting a quorum, at any meeting of the Congress.

SPECIAL REGULATIONS OF THE FIRST CONGRESS.

TIME AND PLACE OF MEETING.

1. The first Pan-American Medical Congress shall be held in the City of Washington, D. C., September 5, 6, 7, 8, A. D., 1893.

REGISTRATION.

2. The Registration fee shall be $10.00 for each member residing in the United States, but no fee shall be charged to foreign members. Each registered member shall receive a card of membership and be furnished a set of the transactions.

ABSTRACTS, PAPERS AND DISCUSSIONS.

3. Contributors are required to forward abstracts of their papers, not to exceed six hundred words each, to be in the hands of the Secretary-General not later than the tenth of July, 1893. These abstracts shall be translated into English, French, Spanish and Portuguese, and shall be published in advance of the meeting for the convenience of the Congress, and no paper shall be placed upon the programme which has not been thus presented by abstract. Abstracts will be translated by the Literary Bureau of the Congress at the request of contributors. Papers to be presented to Sections must not consume more than twenty minutes each in reading, and when of greater length, must be read by abstract. Papers read by abstract may be printed in full in the transactions, subject to approval by the Editorial Committee. Abstracts should be forwarded through the Secretaries of Sections. Papers and discussions will be printed in the language in which they may be presented. All papers read in the Sections shall be surrendered to the Secretaries of the Sections; all addresses read in the General Session shall be surrendered to the Secretary-General as soon as read; and all discussions shall be at once reduced to writing by the participants.

INCORPORATION.

4. The Chairman of the Committee on Organization shall cause the Congress to be incorporated under the laws of Ohio, and fifteen trustees shall be elected in accordance therewith, who by by-laws and through the Executive Committee shall supervise all receipts and disbursements by the Treasurer in accordance with the laws of Ohio. The President, Secretary-General, Treasurer, the member of the International Executive Committee for the United States, and Executive Presidents of Sections shall be *ex-officio* members of the Board of Trustees.

FOREIGN NOMINATIONS.

5. All nominations by the International Executive Committee must be in the hands of the Chairman of the Committee on Organization by June 1st, 1892, and in default thereof the Committee on Organization shall elect officers for countries thus delinquent.

THE ORGANIZATION OF SECTIONS.

6. The officers of each section shall consist of——Honorary Presidents, who shall be residents of the constituent countries of the Congress; one Executive President, who shall organize the work of the Section, direct its deliberations, and deliver an inaugural address at its opening session; one English-speaking Secretary and one Spanish-speaking Secretary, residents of the United States, who shall co-operate with the Executive President in conducting the correspondence of the section; and there shall be one Secretary for each section, resident in each additional constituent country of the Congress.

DOMESTIC AUXILIARY COMMITTEE.

7. The Auxiliary Committee for the United States shall be elected by the Committee on Organization and shall consist of one member for each local medical society, or, in the absence of medical organization, then one in each considerable center of population, which Auxiliary Committee shall co-operate with the Committee on Organization and with the General Officers in promoting the welfare of the Congress. Nominations for the Auxiliary Committee shall be made by members of the Committee on Organization, each for his own State, except that in the failure of any member to make such nomination by January 1st, 1892, or in the inadequacy of the same, the Chairman of the Committee on Organization shall supply the deficiency.

EXECUTIVE COMMITTEE.

8. The Board of Trustees shall designate seven members, including the President, Treasurer, Secretary-General, and member of the International Executive Committee for the United States, who shall comprise an Executive Committee which shall transact all business of the Congress, *ad interim* in accordance with By-laws adopted by the Board of Trustees.

GENERAL OFFICERS OF THE CONGRESS.

PRESIDENT:

WILLIAM PEPPER, M. D., LL. D., PHILADELPHIA, PA.

VICE-PRESIDENTS:

DR. SAMUEL GACHE,	Buenos Aires,	Argentine Republic.
DR. JEROME COCHRAN,	Montgomery,	Alabama.
DR. HENRY A. HUGHES,	Phœnix,	Arizona.
DR. P. O. HOOPER,	Little Rock,	Arkansas.
DR. NAPOLEON RAÑA,	La Paz,	Bolivia.
DR. BAPTISTA DE LACERDA,	Rio de Janeiro,	Brazil.
DR. O. O. BURGES,	San Francisco,	California.
DR. J. E. GRAHAM,	Toronto,	Canada.
DR. MANUEL BARROS BORGOÑO	Santiago,	Chili.
DR. PIO RENGIFO,	New York, U. S. A. (for)	Colombia.
DR. CHARLES DENISON,	Denver,	Colorado.
DR. W. A. M. WAINRIGHT,	Hartford,	Connecticut.
DR. JUAN J. ULLOA,	San José,	Costa Rica.
DR. JAMES H. CHANDLER,	Centreville,	Delaware.
DR. S. C. BUSEY,	Washington,	District of Columbia.
DR. J. R. DANIELS,	Jacksonville,	Florida.
DR. R. J. NUNN,	Savannah,	Georgia.
DR. JOSÉ LLERENA,	Guatemala.	Guatemala.
DR. C. R. BOYER,	Port au Prince	Haiti.
DR. JESÚS BENDAÑA	Comayagua	Honduras.
DR. JOHN S. McGREW,	Honolulu,	Hawaii.
DR. JOHN W. GIVENS,	Blackfoot,	Idaho.
DR. EDMUND ANDREWS,	Chicago,	Illinois.
DR. DONALD McRAE,	Council Bluffs,	Iowa.
DR. WM. B. DEWEES,	Salina,	Kansas.
DR. W. H. WATHEN,	Louisville,	Kentucky.
DR. JOHN B. ELLIOTT,	New Orleans,	Louisiana.
DR. THOMAS A. FOSTER,	Portland,	Maine.
DR. MANUEL CARMONA Y VALLE,	City of Mexico,	Mexico.
DR. W. H. WELCH,	Baltimore,	Maryland.
DR. REGINALDO H. FITZ	Boston	Massachusetts.
DR. H. O. WALKER,	Detroit,	Michigan.
DR. ALEXANDER J. STONE,	St. Paul,	Minnesota.
DR. B. A. DUNCAN,	West Point,	Mississippi.
DR. YOUNG H. BOND,	St. Louis,	Missouri.
DR. W. M. SCHULTZ,	Butte City,	Montana.
DR. JOHN E. SUMMERS,	Omaha,	Nebraska.
DR. S. BISHOP,	Reno,	Nevada.
DR. GRANVILLE P. CONN,	Concord,	New Hampshire.
DR. EDWARD J. ILL,	Newark,	New Jersey.
DR. FRANCIS H. ATKINS,	Las Vegas,	New Mexico.
DR. SENECA D. POWELL,	New York,	New York.
DR. FRANCISCO MATES LACAYO,	Leon,	Nicaragua.
DR. WM. T. CHEATHAM,	Henderson,	North Carolina.
DR. LOUIS C. PETIT,	Bismarck,	North Dakota.
DR. S. S. THORN,	Toledo,	Ohio.
DR. E. P. FRAZER,	Portland,	Oregon.

VICE-PRESIDENTS.—Continued.

Dr. S. WEIR MITCHELL,	Philadelphia,	Pennsylvania.
Dr. LEONARDO VILLAR,	Lima,	Peru.
Dr. ELISHA P. CLARK,	Hope Valley,	Rhode Island.
Dr. FRANCISCO NUÑEZ,	St. Tecla,	Salvador.
Dr. J. R. BRATTON,	Yorkville,	South Carolina.
Dr. M. WARE,	Salem,	South Dakota.
Dr. RICHARD B. MAURY,	Memphis,	Tennessee.
Dr. J. T. BELL,	Tyler,	Texas.
Dr. PEDRO VISCA,	Montevideo,	Uruguay.
Dr. F. S. BASCOM,	Salt Lake City,	Utah.
Dr. L. M. BINGHAM,	Burlington,	Vermont.
Dr. JOSÉ MANUEL DE LOS RIOS,	Caracas,	Venezuela.
Dr. HUNTER McGUIRE,	Richmond,	Virginia.
Dr. H. C. WILSON,	Port Townsend,	Washington.
Dr. FRANCISCO ZAYAS,	Habana, (Cuba,)	West Indies.
Dr. J. J. SENIOR,	Curacao,	West Indies.
Dr. S. L. CRANE, Surg. Gen'l.,	Trinidad,	West Indies.
Dr. THOS. BOWEN,	Bridgetown, (Barbados.)	West Indies.
Dr. The Hon. J. C. PHILLIPPO,	Kingston, (Jamaica,)	West Indies.
Dr. J. J. CORNILLIAC	St. Pierre	Martinique, F. W. I.
Dr. C. SHRIVER,	Bethany,	West Virginia.
Dr. SOLON MARKS,	Milwaukee,	Wisconsin.
Dr. JOHN H. FINFROCK,	Laramie City,	Wyoming.
Dr. B. J. D. IRWIN, Ass't Surg. Gen	Washington, D. C.	U. S. Army.
Dr. J. MILLS BROWNE, Surg. Gen.	Washington, D. C.	U. S. Navy.
Surg. CHAS. S. D. FESSENDEN,	Louisville, Ky	U. S. M. H. Service.

SECRETARY-GENERAL:

CHARLES A. L. REED, M. D.
311 Elm St., Cincinnati, O.

ASSISTANT SECRETARIES-GENERAL:

1. Dr. J. McFADEN GASTIN,	1½ Edgewood Ave,	Atlanta,	Georgia
2. Dr. JOHN GUITÉRAS,	3914 Samson Street,	Philadelphia,	Pennsylvania.
3. Dr. WM. F. HUTCHINSON,	159 High Street,	Providence,	Rhode Island.
4. Dr. W. H. HEATH,	415 Pearl Street,	Buffalo,	New York.
5. Dr. IRVING A. WATSON,	10 Centre Street,	Concord,	New Hampshire.
6. Dr. J. W. CARHART,		Lampasas,	Texas.
7. Dr. FERD. C. VALENTINE,	236 W. 51st Street,	New York,	New York.
8. Dr. A. WALTER SUITER,		Herkimer,	New York.
9. Dr. ISAAC N. LOVE,	Grand Ave.	St. Louis,	Missouri.

TREASURER:

ABRAHAM M. OWEN, M. D.
507 Upper First Street, Evansville, Ind.

CHAIRMAN OF THE COMMITTEE OF ARRANGEMENTS:

Dr. SAMUEL S. ADAMS,
1632 K Street, Washington, D. C.

[The full Committee will be announced at as early a date as possible.]

INCORPORATORS.

Dr. ISAAC N. LOVE	St. Louis	Missouri.
Dr. L. S. McMURTRY	Louisville	Kentucky.
Dr. RUFUS B. HALL	Cincinnati	Ohio.
Dr. T. V. FITZPATRICK	Cincinnati	Ohio.
Dr. A. B. RICHARDSON	Columbus	Ohio.
Dr. CHARLES A. L. REED	Cincinnati	Ohio.

TRUSTEES.

Dr. HENRY D. HOLTON, Chairman,	Brattleboro	Vermont.
Dr. A. WALTER SUITER, Secretary	Herkimer	New York.
Dr. WILLIAM T. BRIGGS	Nashville	Tennessee.
Dr. GEORGE F. SHRADY	New York	New York.
Dr. P. O. HOOPER	Little Rock	Arkansas.
Dr. S. S. ADAMS	Washington	Dist. of Columbia.
Dr. H. O. MARCY	Boston	Massachusetts.
Dr. J. F. KENNEDY	Des Moines	Iowa.
Dr. L. S. McMURTRY	Louisville	Kentucky.
Dr. N. S. DAVIS	Chicago	Illinois.
Dr. LEVI COOPER LANE	San Francisco	California.
Dr. I. N. LOVE	St. Louis	Missouri.
Dr. HUNTER McGUIRE	Richmond	Virginia.
Dr. CLAUDIUS H. MASTIN	Mobile	Alabama.
Dr. J. C. CULBERTSON	Chicago	Illinois.

The President, Secretary-General, Treasurer, Members of the International Executive Committee for the United States, and Executive Presidents of Sections are *ex-officio* members of the Board of Trustees.

EXECUTIVE COMMITTEE.

Dr. HENRY D. HOLTON, Chairman		Brattleboro	Vermont.
Dr. L. S. McMURTRY	231 W. Chestnut Street	Louisville	Kentucky.
Dr. Wm. WARREN POTTER	284 Franklin Street	Buffalo	New York.
Dr. WILLIAM PEPPER, (*ex-officio*)	1811 Spruce Street	Philadelphia	Pennsylvania.
Dr. A. M. OWEN, (*ex-officio*)	507 Upper First Street	Evansville	Indiana.
Dr. A. VANDER VEER, (*ex-officio*)	28 Eagle Street	Albany	New York.
Dr. CHARLES A. L. REED, (*ex-officio*)	311 Elm Street	Cincinnati	Ohio.

INTERNATIONAL EXECUTIVE COMMITTEE.

Argentine Republic:
Dr. PEDRO LAGLEYZE . . . . . Calle Artes 46 . . . . . Buenos Aires.

Bolivia:
Dr. EMILIO DI TOMASSI . . . . . Calle Ayacucho 26 . . . . . La Paz.

British West Indies:
Dr. JAMES A. DE WOLF . . . . . Port of Spain.

British North America:
Dr. JAMES F. W. ROSS . . . . . 481 Sherborne St . . . . . Toronto.

Chile:
Dr. MOISES AMARAL . . . . . Facultad de Medicina . . . . . Santiago.

Costa Rica:
Dr. DANIEL NUÑEZ . . . . . San José.

Dominican Republic:
Dr. JULIO LEON . . . . . Santo Domingo.

Ecuador:
Dr. RICARDO CUCALON . . . . . Guayaquil.

French West Indies:
Dr. J. J. CORNILLIAC . . . . . St. Pierre . . . . . Martinique.
Dr. J. CARREAU . . . . . Point a Pitre . . . . . Guadeloupe.
Dr. D. E. GUESDE . . . . . Point a Pitre . . . . . Guadeloupe.

Guatemala:
Dr. JOSÉ MONTEROS . . . . . Avenida Sur No. 8 . . . . . Guatemala City.

Haiti:
Dr. T. LAMOTHE . . . . . Rue du Centre . . . . . Port au Prince.

Hawaii:
Dr. JOHN S. McGREW . . . . . Honolulu.

Honduras (Spanish):
Dr. GEO. BERNHARDT . . . . . Tegucigalpa.

Mexico:
Dr. TOMAS NORIEGA . . . . . Hospital de Jesus . . . . . Mexico.

Nicaragua:
Dr. J. I. URTECHO . . . . . Calle Real . . . . . Granada.

Paraguay:
. . . . . .

Peru:
Dr. MANUEL C. BARRIOS . . . . . Facultad de Medicina . . . . . Lima.

Republic of Colombia:
Dr. P. M. IBAÑEZ . . . . . Calle 5a Número 99 . . . . . Bogota.

Salvador:
Dr. DAVID J. GUZMAN . . . . . San Salvador.

Spanish West Indies:
Dr. JUAN SANTOS FERNANDEZ . . . . . Calle Reina No. 92 . . . . . Havana.

United States of America:
Dr. A. VANDER VEER . . . . . 28 Eagle Street . . . . . Albany, N. Y.

United States of Brazil:
Dr. CARLOS COSTA . . . . . Rua Largo da Misericordia 7 . . Rio de Janeiro.

Uruguay:
Dr. JACINTO DE LEON . . . . . Calle de Florida No. 64 . . . . . Montevideo.

Venezuela:
Dr. ELIAS RODRIGUEZ . . . . . Caracas.

COMMITTEE ON WAYS AND MEANS.

Dr. J. F. A. ADAMS	Pittsfield	Massachusetts.
Dr. J. H. ALEXANDER	Greensburgh	Indiana.
Dr. J. M. ALLEN	Liberty	Missouri.
Dr. D. S. BROCKAWAY	Livingston	Alabama.
Dr. DAVID BARROW	Lexington	Kentucky.
Dr. JOHN BOWEN	Paris	Kentucky.
Dr. SAM'L T. BASSETT	Richmond	Missouri.
Dr. R. D. BIBBER	Bath	Maine.
Dr. W. T. BRIGGS	Nashville	Tennessee.
Dr. J. W. CARHART	Lampasas	Texas.
Dr. STANFORD E. CHAILLÉ	New Orleans	Louisiana.
Dr. J. J. CHISOLM	Baltimore	Maryland.
Dr. E. R. CAMPBELL	Bellows Falls	Vermont.
Dr. D. W. CROUSE	Waterloo	Iowa.
Dr. W. C. CLAUDE	Annapolis	Maryland.
Dr. O. B. CARCAWA	Sunderland	Maryland.
Dr. Wm. J. CHILDRES	Pine Bluff	Arkansas.
Dr. Wm. COMPTON	Washington	Dist. of Columbia.
Dr. E. D. FREEMAN	Osgood	Indiana.
Dr. GEO. H. FULLER	Delhi	Iowa.
Dr. J. D. FOLSOM	St. Johnsburg	Vermont.
Dr. R. S. FULKERSON	Lexington	Missouri.
Dr. J. D. FERNANDEZ	Jacksonville	Florida.
Dr. ALONZO GARCELON	Lewiston	Maine.
Dr. J. McF. GASTON	Atlanta	Georgia.
Dr. L. A. GRIFFITH	Upper Marlboro	Maryland.
Dr. S. A. GIFFORD	Laurel	Indiana.
Dr. W. D. HUNTINGTON	Rochester	Vermont.
Dr. JOHN B. HAMILTON	Chicago	Illinois.
Dr. JOHN HOUSE	Manchester	Indiana.
Dr. C. K. HAGGARD	Middlesborough	Kentucky.
Dr. JAMES A. HORNE	Mauch Chunk	Pennsylvania.
Dr. GEO. H. HILL	Independence	Iowa.
Dr. E. P. HURD	Newburyport	Massachusetts.
Dr. HOBART A. HARE	Philadelphia	Pennsylvania.
Dr. F. E. HITCHCOCK	Rockland	Maine.
Dr. H. D. HOLTON	Brattleboro	Vermont.
Dr. C. H. HUGHES	St. Louis	Missouri.
Dr. P. O. HOOPER	Little Rock	Arkansas.
Dr. H. L. E. JOHNSON	Washington	Dist. of Columbia
Dr. J. M. KELLER	Hot Springs	Arkansas.
Dr. D. G. KEMP	Montpelier	Vermont

Dr. WILLIS P. KING	Kansas City	Missouri.
Dr. H. LEONARD	New Braunfels	Texas.
Dr. F. M. LANCASTER	Wayside	Maryland.
Dr. LEVI COOPER LANE	San Francisco	California.
Dr. ISAAC N. LOVE	St. Louis	Missouri.
Dr. J. M. McLAUGHLIN	Springville	Alabama.
Dr. P. H. MILLARD	St. Paul	Minnesota.
Dr. J. N. McCORMACK	Bowling Green	Kentucky.
Dr. L. S. McMURTRY	Louisville	Kentucky.
Dr. GEO. MINGES	Dubuque	Iowa.
Dr. Wm. A. McCOY	Madison	Indiana.
Dr. Wm. J. MOODY	Plainfield	Iowa.
Dr. J. LEE McCOMAS	Oakland	Maryland.
Dr. ISAAC OTT	Easton	Pennsylvania.
Dr. C. R. OGLESBY	Pensacola	Florida.
Dr. A. M. OWEN, *ex-officio*	Evansville	Indiana.
Dr. F. PEYRE PORCHER	Charleston	South Carolina.
Dr. Wm. WARREN POTTER	Buffalo	New York.
Dr. Wm. PEPPER, *ex-officio*	Philadelphia	Pennsylvania.
Dr. GEO. H. ROHÉ	Catonsville	Maryland.
Dr. CHARLES A. L. REED, *ex-officio*	Cincinnati	Ohio.
Dr. J. T. SIMPSON	Holden	Missouri.
Dr. X. C. SCOTT	Cleveland	Ohio.
Dr. A. O. STROUT	Parkersburgh	Iowa.
Dr. J. S. SHIBLEY	Paris	Arkansas.
Dr. A. WALTER SUITER	Herkimer	New York.
Dr. R. STANSBURY SUTTON	Pittsburgh	Pennsylvania.
Dr. A. VANDER VEER	Albany	New York.
Dr. E. VAN NOTE	Hamilton	Missouri
Dr. J. COLLINS WARREN	Boston	Massachusetts.
Dr. HAL. C. WYMAN	Detroit	Michigan.
Dr. M. R. WRIGHT	Etowah	Alabama.
Dr. A. WILLIAMS	Elk Ridge	Maryland.
Dr. P. R. THOMBS	Pueblo	Colorado.
Dr. J. T. ESKRIDGE	Denver	Colorado.

SECTION ON GENERAL MEDICINE.

HONORARY PRESIDENTS:

Dr. Manuel Carmona y Valle, City of Mexico; Dr. Francis Delafield, New York, N. Y.; Dr. Israel F. Dunn, Portland, Me.; Dr. Reginald H. Fitz, Boston, Mass.; Dr. J. O. Hirschfelder, San Francisco, Cal.; Dr. Henry M. Lyman, Chicago, Ill.; Dr. Alfred L. Loomis, New York, N. Y.; Dr. Emilio Martinez, Havana, Cuba; Dr. William Osler, Baltimore, Md.; Dr. John A. Ouchterlony, Louisville, Ky.; Dr. William Pepper, Philadelphia, Pa.; Dr. F. Peyre Porcher, Charleston, S. C.; Dr. G. Isaac Ugarte, Santiago, Chile; Dr. Armando Velez, Lima, Peru; Dr. H. A. West, Galveston, Texas; Dr. James C. Wilson, Philadelphia, Pa.; Dr. Carlos E. Bernhard, Tegucigalpa, Honduras. Dr. J. J. Cornilliac, St. Pierre, Martinique; Dr. Henry Hun, Albany, N. Y.; Dr. Guzman, Nicaragua.

EXECUTIVE PRESIDENT:

Dr. Victor C. Vaughan, 15 South State Street, Ann Arbor, Michigan.

SECRETARIES:

Dr. Judson Daland (English-Speaking), 317 S. 18th St., Philadelphia, Pa.	Dr. Ramon L. Miranda (Spanish-Speaking), 439 W. 46th St., New York, N. Y.

Dr. Güemes, [Lavalle 869.]	Buenos Aires,	Argentine Republic.
Dr. A. A. de Azevedo Sodré,	Rio de Janeiro	U. S. of Brazil.
Dr. Moorehouse,	London,	Ontario.
Dr. A. J. Williams,	Georgetown,	Br. Guiana.
Dr. John Fullock,	Tobago,	Trinidad, W. I.
Dr. Ignacio Gutierrez Ponce, [2 Rue Pierre Charron 2.]	Paris, France,	(for Rep. of Colombia.)
Dr. Martin Bonnefille,	San Jose,	Costa Rica.
Dr. J. Carreau	Point à Pitre	Guadeloupe, F. W. I.
Dr. Samuel González,	City of Guatemala,	Guatemala.
Dr. Arch. Désert,	Port au Prince,	Haiti.
Dr. G. P. Andrews,	Honolulu,	Hawaii.
Dr. Rómulo Colindres,	Comayagua,	Honduras.
Dr. Basilio Marin,	Leon,	Nicaragua.
Dr. Vicente B. Valdés, [Teniente Rey 104]	Havana,	Cuba.
Dr. Enrique Figari, [Uruguay 190]	Montevideo,	Uruguay.
Dr. Francisco A. Rísquez	Caracas,	Venezuela.
Dr. Demetrio Mejía [San Andrés 12]	City of Mexico,	Mexico.
Dr. G. E. Pierrez,	Antigua	British W. I.

SECTION ON GENERAL MEDICINE.

TITLES AND ABSTRACTS.

No. 1. (*a*) Address by the Executive President of the Section, VICTOR C. VAUGHAN, A. M., M. D., Ann Arbor, Michigan.

—o—

No. 1. Paper by MANUEL CARMONA Y VALLE, M. D., City of Mexico.
[Neither Title nor Abstract furnished.]

—o—

No. 2.

FORMS OF MALARIA AND THEIR CHARACTERISTIC FEATURES.

BY DR. FRANCISCO A. RÍSQUEZ.
Professor of Medicine in the University of Caracas, and Physician to the Military Hospital in the Federal District, Venezuela.

The malarial diseases in Venezuela may be classified as follows:

I. Intermittent forms, generally quotidian, occasionally tertian.
II. Continued forms, including the varieties: (*a*) bilious, (*b*) icterohematuric.
III. Pernicious forms, including the varieties: (*a*) pernicious proper, (*b*) complicated.
IV. Larved forms, including the varieties: (*a*) periodic, (*b*) continued.

The forms of the first group are easily recognized by the features of the paroxysm and by the periodic element. When the access is prolonged, the diagnosis may be difficult.

The forms of the second group are distinguished by the gastro-hepatic symptoms and the indications of the urine. They may be confounded with others, especially the yellow fever, and the distinction becomes often a matter of life and death.

The forms of the third group are recognized by the pre-existence of malarial paroxysms. It may become almost impossible, however, to distinguish between cholera, pneumonia or tetanus and cases of choleriform, dysenteric, tetanic, etc., pernicious fevers.

The forms of the fourth group present still greater difficulties, especially in the continued varieties. They may assume all the appearances of typhoid fever, of cholera, of dysentery, of paralysis, of hæmorrhage. The malarial cachexia may simulate tuberculosis, hepatic abscess, etc.

An early diagnosis is indispensable in these cases, because they require the fearless administration of quinine; and this drug may be contra-indicated in the non-paludal diseases.

There is but one unquestionable method of diagnosis: *the microscopic examination of the blood.*

All malarial manifestations are accompanied with melanœmia; melanœmia presents itself exclusively in malaria, the sign is, therefore, pathognomonic.

A drop of malarial blood, under the microscope, shows the masses of black pigment in the plasma. The manipulation requires no special technique; it is simpler than the examination of the urine. It does not require, as the parasite of Laveran does, an investigation by an expert with high powers. Our method requires only a few slides and covers, and a drop of blood obtained from the finger, previously washed. The preparation is taken to the laboratory and there examined. The strong mineral acids may be used as reagents.

A search after pigment should be made in all suspected cases. The number and size of the pigment masses is proportional with the degree of malarial poisoning. If they are found at all, quinine should be given.

I have found pigment in all forms of malaria. I have found it also in other diseases, but only as an evidence of malarial complication.

Melanœmia is always an indication for the administration of quinine. The life of the patient depends often in these cases upon a prompt diagnosis.

CARACAS, June 13, 1893.

———o———

No. 3. Paper by E. L. SHURLEY, M. D., Detroit, Michigan, U. S. A.
[Neither Title nor Abstract furnished.]

———o———

No. 4. Paper by J. C. WILSON, M. D., Philadelphia, Pa., U. S. A.
[Neither Title nor Abstract furnished.]

———o———

No. 5. Paper by CHARLES G. STOCKTON, M. D., Buffalo, N. Y., U. S. A.
[Neither Title nor Abstract furnished.]

———o———

No. 6. Paper by T. PEYRE POSCHER, M. D., Charleston, S. C., U. S. A.
[Neither Title nor Abstract furnished.]

———o———

No. 7. Paper by J. H. MUSSER, M. D., Philadelphia, Pa., U. S. A.
[Neither Title nor Abstract furnished.]

———o———

No. 8. Paper by GEORGE DOCK, M. D., Ann Arbor, Mich., U. S. A.
[Neither Title nor Abstract furnished.]

———o———

No. 9.

ABSTRACT OF A PAPER ON "COLD STEEL AS AN ANTI-RHEUMATIC."

BY W. K. VANCE, A.M., M.D.,
Bristol, Tenn.

That the two most frequent venereal diseases are often concerned in the causation of inflammatory rheumatism is a fact that has long been known to the profession.

Few, if any, physicians doubt the intimate relationship that exists between syphilis and rheumatism, and years after the initial lesion of the former we frequently diagnose rheumatism as of syphilitic origin, and generally get good results from instituting a line of treatment based upon this theory.

It is equally well established that gonorrhœa is an important and frequent causative factor of rheumatism, but in the absence of a history of a recent attack of the former affection physicians rarely entertain the idea that there is any connection between the obstinate cases of rheumatism with which they meet and specific urethritis.

That such cases do sometimes occur, years after the gonorrhœa, which can logically be considered sequels of it, the writer is convinced by reason of several cases of that character that have come under his observation, two of which he reports.

They were both cases of two (2) years' duration, neither had had an attack of gonorrhœa, or visible gleety discharge within a year of the first rheumatic manifestation. Both cases had been treated for a period of two years by good physicians in the usual way with no beneficial results, before coming under the writer's care.

Exploration of their urethras proved that both were badly strictured, and the victims of posterior urethritis, treatment for which with the cold-steel sound soon caused the disappearance of all rheumatic symptoms.

The writer is of the opinion that the term gonorrhœal rheumatism, as ordinarily used and understood by the profession, is too restricted in its significance.

Adopting the theory that gonorrhœal rheumatism should be regarded as a reflex trouble, "the exciting cause being the irritation of the genital organs that is always present in gonorrhœa, active through some ill understood mechanism," the writer believes that this "irritation" long outlives gonorrhœa, and that in strictures, mucous patches, and hyperæsthetic conditions of the urethra, so frequently sequels of gonorrhœa, we have essentially the same exciting cause of rheumatism existing even after an interval of years, and that the rational and only successful plan of treating such cases is to restore the integrity of the urethra in the manner indicated.

Bristol, Tenn., May 1, 1893.

—o—

No. 10.

CHOLERA ASIATICA, 1892.

By J. Drummond Burch, A. M., M. D.,
Aurora, Texas.

So long as the mud of the Ganges is sacred, so long will cholera trouble the earth. During the Sepoy rebellion native troops were governed by grades of caste. The great difficulty of transacting ordinary business on carrying out sanitary laws among a population so resembling their sacred river, with its 1500 miles of "variety of phases," having her source in the nail of the great toe of Vishnu's left foot. This endemic of India was first noticed in Djelalabad, Afghanistan, a town largely Hindoo, in December, 1891. Pilgrims carried it to the great Hurdwan Fair, about 250 miles north of Lucknow, by March or April, 1892. Thence, "commerce having been engrafted on religion," it traversed much of the route of 1831, as shown by Surgeon General Cornish. Dr. Grebentschikoff affirms the present epidemic is a continuation of a pandemic which began its course in 1881. The Golden Horn was frozen over, the first time since 1849. The coldest winter known in Europe, for years, did not arrest it. Why? The Paris

epidemic not believed by some to be directly connected with this epidemic traveling from India. Dr. Prousts' report suppressed by the Prefect of the Seine: "Filth does not generate cholera nor cleanliness exempt from it." Most generally accepted theory is that Koch's comma bacilli are the cause. Semmola: "This doctrine at best is based only on a hypothetical basis * * * results that are established solely in the laboratory." Malignant epidemics of cerebro-spinal meningitis, typhoid and typhus fevers have their causes in unhygienic conditions, cholera and the eruptive fevers seem to be confederated through a germ theory of which so much and so little is known. One may breathe small-pox, he must swallow cholera. Dr. Reiche ascribes the explosive type of the Hamburg epidemic to the water of the Elbe. The first case from Baku on the Caspian Sea. Timely local disposition, as taught by von Pettenkoffer was there. Professor von Pettenkoffer's X, Y and Z, discussed in a letter received from M. Hoffkine. Pettenkoffer, to destroy Hoffkine's theory of inoculation, holds that "epidemics of cholera are never accompanied by epidemics, etc." "What will affect man does not affect lower animals." Man alone of all living creatures is susceptible to the cholera virus, etc." Discussion. Pettenkoffer's mistake, which he covers with the blanket of "coincidence." Hoffkine's demonstrations to show the value of anti-cholera vaccine; 400 in India without any untoward symptoms. Koch says comma bacilli die quickly when dried. Question. Comma bacilli lately discovered in intestines of flies. Bacteria may be carried by paper money. Drs. Acosta and Rossi, on two notes of the Bank of Spain, weighing about fifteen grains, estimated 19,000 septic germs of various kinds. Dr. Reiche notes the difference in symptoms in the epidemic at Hamburg and those already known. Petechiæ or ecchymosal spots over the bodies of some cases, as seen principally over the joints of sufferers in the epidemic of cerebro-spinal meningitis in Texas in 1890, in which all cases were complicated by articular rheumatism. Enteric fever as a complication rarely seen at Hamburg. Opposed to cremation because of peculiar morbid anatomy, etc., of cholera. Discovery of Pepper, Jackson, Neil and Goddard, in 1849 confirmed. Reiche thinks Koch's discovery confirmed at Hamburg. In treatment, Pacini discussed. The hypodermoclysis and enteroclysis of Cantini. Surgeon Lieutenant-Colonel Lewins, M. D., says his father originated the saline rectal and venous injections in 1832, so "new" to some modern writers. In discussion Macnamara says, if laudanum must be used to retain comma bacilli in intestines of a guinea pig for experimental purposes is it not a good argument against its use in treating the disease in man? Strong argument for inoculation is the fact that persons once affected by cholera are somewhat immune. Note received from Sir Andrew Clark, M. D., on treatment. *Prevention* is the best treatment. Not an Americanism, but a philanthropic desire for the spirit of Lord Clive, as health officer, and Lord Bentinck, as inspector-general of India, that cholera might be abolished as *sutti* and the Thugs. Only English authorities quoted.

———o———

No. 11.

FACTS IN STETHOSCOPIC PERCUSSION.

By Henry Sewall, Ph. D., M. D.,
Denver, Colorado.

When any homogeneous body is set in vibration, the vibrations gradually decrease in amplitude as they depart from the point of impact. When a second homogeneous body is in contact with the first, vibrations set up in either may be transmitted to the other, but the amplitude of the vibrations and the intensity of the sound due to them are suddenly and markedly diminished when the line of contact is crossed. When the stethoscope is placed on the human

body well over the site of any superficial organ, as the stomach, gentle tapping of the surface with the pulp of the middle finger produces in the stethoscope a sound of greater or less intensity as the tapping is nearer to or farther from the instrument, though no sound whatever is audible to the unaided ear. When the percussing finger is moved in a straight line away from the stethoscope the sound heard through the instrument suffers a marked diminution in intensity so soon as the finger has crossed the margin of the stomach and impinges, say, over the colon, supposing these organs to be in contact. When the stethoscope is now placed over the colon, and percussion carried out from centre to periphery as before, there is a sudden diminution in the sound at the spot first marked as on the margin of the stomach. This is the procedure I call by the name "Stethoscopic Percussion." It is obvious that, according to the principle stated, adjoining organs may be delimited under all possible conditions, as follows: (1) Both organs contain air; (2) both are solid; (3) both contain fluid; (4) one is solid, the other contains fluid; (5) one contains air, the other fluid; (6) one contains air, the other is solid. I have many times assured myself of the practical truth of all these propositions except the third, and so frequently has the result of stethoscopic percussion been exactly confirmed both in the *post mortem* room and on the surgical operating table, that the method has won, with me, a confidence peculiar to itself. By stethoscopic percussion it is usually easy to outline the stomach. The spleen and liver seldom offer any difficulty. The line separating either the relative or absolute liver dullness from fluid in the right pleural cavity is readily determined; so also is the line between the lower border of the liver and an ascitic accumulation. The areas of heart and liver dullness are separable where they are in contact. The level of an effusion into abdomen or thorax is easily made out. When to ordinary percussion the note over the lower part of the liver is tympanitic, stethoscopic percussion may determine the true borders of the organ; and when to ordinary percussion the stomach gives a dull note, indistinguishable from that of the spleen, it is not difficult by stethoscopic percussion to arrive at the true outline of the organ. The cranial sutures can apparently, be accurately determined. Of the change in pitch and quality of the stethoscopic percussion note, I am as yet prepared to say nothing. Finally, stethoscopic percussion supplants none of the ordinary means of physical diagnosis, but is a valuable adjunct to all of them.

—o—

No. 12. Paper by W. C. Christopher, M. D., Chicago, Ills., U. S. A.
[Neither Title nor Abstract furnished.]

—o—

No. 13.

A STUDY OF SOME CASES OF CHRONIC DIABETES.

By Dr. N. S. Davis, Jr.,
Chicago.

The following headings will illustrate its scope:
(1) Climatic Relationships of Diabetes.
(2) Seasonal Relationships of Diabetes.
(3) Relation of Sugar Excretion to other Symptoms of the Disease.

—o—

No. 14. Paper by C. S. Bond, M. D., Richmond, Ind., U. S. A.
[Neither Title nor Abstract furnished.]

No. 15.

ABSTRACT OF A PAPER ON "TYPHOID FEVER."

By Wm. C. Dabney, M. D.,
Professor of Practice of Medicine, University of Virginia.

This paper is based on a study of fourteen cases of continued fever occurring at the University of Virginia between January 15 and April 1, 1893. The epidemic, or outbreak, presented the following features of interest:

(1) There had been no typhoid fever in or around the University so far as I could learn for several months.

(2) Between the middle of January and the first of April, 1893, there occurred fourteen cases of continued fever among persons living or employed on the University grounds.

(3) The persons who had this continued fever had rooms at widely separated parts of the University grounds but all took their meals at the same hotel.

(4) The water supply of this hotel was the same as that of the other hotels and of other parts of the University and the sanitary condition of the building was good.

(5) A part of the milk supply was obtained from cows whose teats had been washed in water contaminated by sewage and *probably* infected with typhoid fever germs. It was in evidence also that at least five of the fourteen persons used milk at every meal.

(6) Of the fourteen cases of continued fever five (5) presented the typical features of typhoid, seven were typical in character, and of the other two I cannot speak with certainty as they were not under my care and I could get no satisfactory history of the cases.

———o———

No. 16.

A CASE OF ACROMEGALY IN A GIANTESS.

By Dr. Woods Hutchinson,
Des Moines, Iowa.

"Adma, the French Giantess," died while on exhibition at a Dime Museum in Des Moines, February 27, 1893. Body was secured for Iowa State University, and on measurement was found to be 6 feet 8½ inches in height, age 21, unmarried.

Hands, feet and face presented characteristic shape and enlargement suggestive of acromegaly, and on autopsy pituitary body found to be greatly enlarged: sella turcica would admit small pigeon's egg. Reported to have died of "decline" or "consumption," with great and increasing bodily weakness and failure of mental powers, but lungs were found unimpaired. Said to have been almost imbecile before death. Sexual system very imperfectly developed; uterus and vagina very small, mammary glands absent. Organs otherwise normal, except smallness in proportion to bodily bulk.

Suggestions: Analogy or connection between acromegaly and unusual stature. Mental and bodily weakness of "giants." Inquiring into size of Sella Turcica in Infants.

———o———

No. 18. Paper by D. W. Prentiss, M. D., Washington, D. C., U. S. A.
[Neither Title nor Abstract furnished.]

No. 19. Paper by R. L. MIRANDA, M. D., New York City, U. S. A.
[Neither Title nor Abstract furnished.]

—o—

No. 20. Paper by WILLIAM OSLER, M. D., Baltimore, Md., U. S. A.
[Neither Title nor Abstract furnished.]

—o—

No. 21.

THE VALUE OF REST AS A THERAPEUTIC AGENT IN CHRONIC PULMONARY TUBERCULOSIS.

BY KARL VON RUCK, B. S., M. D.,
Asheville, N. C.

This paper is presented because of a manifest tendency to over-estimate the value of, and to recommend rest as a general means for a cure; whereas it is only one aid toward complying with certain indications which may or may not be present in a given case.

Prolonged rest in bed is not conducive to the best nutritive processes in health; on the contrary, if persisted in, it leads to diminished appetite and diminished assimilation of food, the muscles become soft and decrease in size, anæmia and loss in flesh and strength follow, which may, however, be prevented by massage and the use of electricity, thereby substituting necessary exercise to keep up a proper circulation and nutrition, and the author's experience with prolonged rest in bed in cases of chronic phthisis who have nothing more than a circumscribed local tubercular deposit in the lung, and who are, therefore, in an early stage, is the same as in persons having good general health. If such a patient presents nutritive disturbances and is wasting, it is not because of the tubercular deposit but because of pre or coexisting complications.

Apart from the occurrence of pulmonary hæmorrhage and acute inflammatory processes in the chest, in which the patient naturally takes to his bed, the chief indication for rest treatment is the presence of *Septic fever*, but a case in which it is present is no longer one of uncomplicated tubercular disease.

The breaking down and suppuration of tubercular deposits are due to additional infection with the several pus germs, and without such infections the deposits do not undergo changes of softening and breaking down, but tend to the development of connective tissue changes and fibrosis without the occurrence of fever. If rest treatment could prevent the former and induce or favor the latter, it would then amount to a remedy against tuberculosis, but so far it has not been shown that it can do either. This septic infection engrafted upon the local tuberculosis is practically a new disease and for the time controls the entire situation, requiring for its arrestment every available means at our command, when once thoroughly established.

Only one of these means, but a most important one, *is rest* in the recumbent position, the object being to lighten the labor of the heart, with a view of maintaining the best possible circulation through the lung, and thus to prevent and relieve local congestion and retarded circulation in the affected lung portion.

The heart, already performing extra labor on account of the obstruction in the lung by the tubercular process, is called upon for further increase by the fever itself, which at the same time tends to damage the organ by inducing degenerative changes in its muscular fibre. Clinically the author finds from an experience with many hundreds of such cases, that under rest in the recumbent position, the circulation is better maintained, the cough and expectoration become less, and the fever is moderated, and the lighter cases soon reach a normal temperature and

improve in general, when, with the employment of rest, the feeding of the patient and his environments and hygienic surroundings are good.

In severe forms while the good influence of rest is unmistakable, the patient is apt to go down, nevertheless, only at a slower pace, and in such cases, hydropathic applications, in connection with rest, diet and stimulants frequently come to the rescue.

As the septic fever subsides and is finally and permanently controlled, continous rest in bed is no longer indicated, and the patients gain faster and better when they are allowed to sit up and go out of doors, for longer or shorter hours during the day, as their strength may permit without inducing fatigue.

———o———

No. 22.

A NEW ANAEROBIC BACILLUS OF MALIGNANT ŒDEMA.

By F. G. Novy, Sc. D., M. D.,
Ann Arbor, Mich.

In several guinea-pigs which died after injection of an impure milk nuclein solution a marked œdematous condition was observed resembling, and even more pronounced, than that of malignant œdema. In the subcutaneous tissue, peritoneal exudate, heart blood, spleen, liver, etc., were found enormous numbers of a long slender bacillus. This organism was found to be obligative anaerobic in character and pure cultures possessed marked infections and extremely toxic properties, producing death in from twelve to thirty-six or forty-eight hours, with the characteristic œdematous condition. White rats, white mice, rabbits, guinea-pigs and pigeons, are all extremely sensitive.

The organs and tissues of animals that have died after inoculation with pure cultures contain very few germs and often none can be found, showing that the normal body is not a very good soil for the growth of the germ. By injecting certain chemical substances and cultures of common non-pathogenic bacteria at the same time with the virulent germ, this natural resistance of the body is altered, and as a result the germ develops in enormous numbers throughout the body.

This new, highly pathogenic, anaerobic bacillus is motile and the flagella can be readily demonstrated by Löffler's method. In some of the cover-glass preparations made from animals colorless spirals can be observed. In cultures on certain media and under certain conditions are found similar spirals which in reality are giant whips. These can be readily seen in hanging drops even with a dry objective. These abnormal flagella are exactly the same as those described by Löffler in connection with symptomatic anthrax, and their formation is probably due to involution changes.

The germ is readily stained by simple dyes and also by Gram's method. Spore formation has not been observed but the germ itself is extremely resistant. It can be grown in vacuum, in hydrogen, carbonic acid, nitrogen, and even in illuminating gas.

———o———

No. 23.

PROGRESSIVE PERNICIOUS ANÆMIA.

By Judson Daland, M. D.,
Philadelphia, Pa.

The complete absence of any knowledge as to the etiology of this disease, and the consequent unsatisfactory results of all efforts to relieve this condition, are the writer's reasons for presenting a detailed report of two interesting cases.

Case I.—An unmarried woman of 36, with a good family and personal history, was in the habit of working hard, eating irregularly, and in great haste. Progressive emaciation set in about a year before she came under observation, and at the same time her skin showed a peculiar yellow color. On admission to the hospital she complained of intense weakness. There was œdema of the upper and lower extremities, and an absence of any positive physical signs of disease.

The blood was of a light pink color, very watery, and showed no tendency to coagulate. Microscopical examination demonstrated that many of the red blood corpuscles were double the normal size, and that a large number of microcytes were present. Poikilocytosis was well marked. The blood was counted by a Thoma-Zeiss Hæmocytometer, and showed a great reduction in the red blood corpuscles. In examinations of the blood in such cases it is advisable to take a double quantity of the blood; dissolve it in the water used for dilution, and make two estimates of the hæmaglobin; the results divided by two will give a more correct estimate than that obtained otherwise. Fleishel's Hæmometer does not record correctly percentages of hæmaglobin down as low as 10 or 15 per cent. Extreme exhaustion continued until the death of this patient on the eighth day after admission to the hospital, and three and a half months from the appearance of the first symptoms.

A careful autopsy resulted in a diagnosis of anæmia; chronic parenchymatous nephritis; fatty liver; gall-stones and jaundice; pachy-meningitis interna hemorrhagica, and hyperplasia of the spleen. Minute examination of the liver under the microscope showed the presence of iron around the periphery of the lobules. The case is chiefly interesting from the rapidity with which the symptoms developed.

Case II.—A man, aged 45, with symptoms somewhat similar. Urine was normal, as were the viscera, and repeated physical examinations gave negative results. Patient went from bad to worse. The number of red blood corpuscles descended from 2 million to 1½ million, and the hæmaglobin descended from 46 per cent to 40 per cent. The general condition grew rapidly worse, and the patient died of exhaustion.

The post-mortem examination appearances were similar to those of the preceding case. Both were perfectly typical examples of this disease, and the blood conditions precisely what would be expected. Urine was found diffused in the liver, spleen and kidneys in unusual quantities, thus confirming the observations of Dr. Hunter, of London, in regard to this peculiarity of the disease.

———o———

No. 24.

ON THE OCCURRENCE OF A FORM OF CHRONIC BRIGHT'S DISEASE, OTHER THAN TYPICAL FIBROID KIDNEY, WITHOUT ALBUMINURIA.

By D. D. Stewart, M.D.,
Philadelphia, Clinical Lecturer on Medicine, Jefferson Medical College.

The importance of recognizing that the mere absence of albumin from the urine does not exclude renal degeneration is dwelt upon, and the fact deplored that with the non-discovery of albumin in a renal suspect, a further inquiry as to abnormalities of the urine, microscopically and chemically, is too frequently abandoned.

It is further pointed out, that even our best text-books on general medicine fail to either notice or lay stress upon the fact that Bright's disease may occur and run its course without

albumin ever being discovered in the urine. Yet the occurrence of such cases was known to Wilks, of Guy's Hospital, in 1852; and Mahaned, in 1879 and 1880, described a number of them. These, however, were all cases of red, granular (fibroid) kidney, occurring in middle life or old age, and usually associated with such typical symptoms of this affection as marked cardio-vascular changes, and at some time or other in the course of the disease polyuriâ. The symptoms were those now known as common to arteriocapillary fibroid kidney, often rather cardiac than renal.

None, so far as the speaker knows, have described such cases as certain of those whose history he relates. In all, albumin is totally absent from the urine, and a tendency to diminution rather than any increase in the normal amount of urine has always existed. Nitrogenous excretion is lessened, and casts (in all hyaline, in several granular, and in one also waxy) and kidney epithelia have been discovered in the urine. In several,—young adults,—cardio-vascular changes are absolutely undetectable, though arterial tension is high and the apical second sound accentuated. In others,—in middle life,—cardio-vascular changes are slightly present, but the apex beat is not displaced. In nearly all some uræmic symptoms have occurred, and have drawn attention to the kidney ailment. In several, eye-changes are present.

In conclusion, these cases reported present symptoms other than those of typical granular kidney, and the ease with which the number reported was collected after the first of them observed was recognized, indicates that they are of probably common occurrence though generally overlooked.

——o——

No. 25.

CLINICAL STUDY OF THE DISEASE KNOWN AS "LA BUBA."

By Drs. Luis Razetti y N. Guardia, Jr.,
University of Caracas.

La Buba, a contagious, inoculable disease, endemic in some tropical regions, and characterized by a vesiculo-pustular eruption, followed by fungoid ulcerations.

Clinical description.—No fever unless there be a secondary infection. No prodromes. The eruption begins as a vesicle which, after a period more or less long, becomes an ulcer, called the *mother buba*. This *mother buba* is not permanent. It may disappear before the secondary phenomena present themselves, or may persist during the whole course of the disease, and even longer. The *mother buba* presents itself only in portions of the surfaces of the body that are not covered by dress.

The secondary manifestations consist of a general eruption of ulcerating pustules. These become fungoid and covered with a yellowish crust. These pustules are the seat of pain and itching. The *mother buba* alone presents an indurated base and is followed by a scar; whilst the other ulcers leave only spots that subsequently disappear. The duration is from nine to twenty-four months. Occasionally *el clavo* (wart?) or *osondo* remains as a sequela.

A solution of continuity of the skin is indispensable for the contagion. This may be produced by the bite of insects. The *buba* is then an infectious disease, and must have for its cause a micro-organism not yet isolated. The disease is not a syphilitic manifestation. There is no hereditary tendency. The *buba* cannot be confounded with any other disease. The only treatment thus far employed consists of mercury, iodide of potassium, and antisepsis of the skin. Prophylaxis is of the greatest importance.

Caracas, Venezuela, June 7, 1893.

No. 26.

INSANITY IN THE NEGRO.

By Dr. J. B. Da Lacerda,
Rio Janeiro.

A serious study of the neuro-pathology of the negro can only be undertaken in such countries as Brazil, the United States, and some of the Spanish colonies. We have resided a few years in a rural district of Brazil, and we have paid attention to this subject.

We have observed that in the negro race, the psychoses, and the diseases classified under the vague denomination of neuroses, are relatively rare. The most prevalent form of insanity is the *mania of persecutions*. It assumes the most varied forms, and is always accompanied with hypochondria and hallucinations. Suicide is not a rare termination of such cases.

The miserable social conditions of the slaves, the cruel treatment to which they were subjected, the brutish state in which they were kept, may perhaps explain the dominant features of the psychoses of the negro of Brazil.

Notwithstanding what we read in the recent work of Gilles de la Tourette, we do not hesitate to say that hysteria is a rare neurosis in the negro race. We have never seen a negress with *hysteria major*, or with those ill-defined nervous troubles that are considered to-day as manifestations of hysteria. All opinions to the contrary are probably founded on simulated attacks.

It is also worthy of note that the nervous system of the negro is less sensitive to the action of narcotics. It requires larger doses of opium and chloral to make him sleep.

May, 1893.

———o———

No. 27.

THE CAUSE OF YELLOW FEVER.

By Dr. J. B. de Lacerda,
Rio de Janeiro, Brazil.

We wish to present to the Congress the conclusions of a book shortly to be published with the title of *Le Microbe* pathogéne de la fiebre jaune.

After a study of the black vomit, the urine, the blood, the tissues of the kidneys, the liver, the stomach, and the intestines, I am convinced that the pathogenic microbes of yellow fever are not bacteria, but rather a polymorphous fungus. This fungus, cultivated upon a nutritive medium rich in nitrogenous matter and the hydrocarbons, if supplied with air sufficiently and kept at a temperature of 33°–35° C., grows an abundant mycelium, and round or elliptique gonidia of a golden color.

Cultivated in a saccharine medium the fungus assumes the torula form, showing the same color. In this shape it acts as a ferment upon the sugar. It is under this form that we have found the fungus in the mucous membrane of the stomach, in the vomited matters, in the urine, in the kidneys and the liver. In the latter organ the fungus often takes the form of hyaline cells with a double contour. It is very rarely found in the blood. The mycelial form can be grown, upon the proper media, from the torula.

After many fruitless attempts we have succeeded in producing some of the symptoms of yellow fever, and the lesions of the liver and kidney, in guinea pigs. These results have been obtained by injecting into the stomach, previously made acid by tartaric or lactic acid, the

spores of the fungus. Two or three days later the temperature would rise two degrees, and death would follow in five or six days.

One of the animals presented suppression of urine, and the bladder was found empty after death. Microscopical research proved the presence in the kidneys, liver and stomach of these animals, of the torula fungus, with hyaline cells of double contour.

We are convinced to-day that the infection in yellow fever takes place in the stomach. The poision or toxine is elaborated there, and it attacks and corrodes the mucous membrane, the walls of the capillaries and the blood.

The anuria is due to obstruction of the venal tubules by masses of fungi mixed with solid albumin, and epithelial débris.

We propose as a basis of treatment the flushing and disinfection of the stomach. A few cases with encouraging results are reported. We have found that the oil of eucalyptus can be used with advantage as a disinfectant in the stomach, and that the perchloride of iron acts as a germicide upon the torula form of the fungus.

I hope to be able to furnish illustrative plates.

May, 1893.

—o—

No. 28.

A NEW DISEASE OF THE WEST INDIES.

By Dr. Cuthbert Bowen,
Barbados, West Indies.

(1) During my four years stay in Barbados, I have noticed a peculiar inflammatory condition of the buccæ mucous membrane and alimentary canal, occurring coincidently with a sharply defined pigmentation (symmetrically) on the dorsal aspects of the hands and feet.

Photographs and colored plates will show these conditions.

(2) Alimentary disturbances strongly resemble Indian sprue,—called Psilosis, by Dr. Thin, of London,—but sprue has not this pigmentation.

(3) Thrush,—*aphthæ tropicæ*, and sprue contrasted with my cases.

(4) Details of cases—futility of treatment.

(5) Results of post-mortem examination—as far as microscopical appearances go—showing læsion to be in large intestine.

(6) Rectal and intestinal medication indicated and used with good result temporarily.

(7) Syphilis and leprosy often *accompany* this condition, but shown conclusively not to be the etiological factors.

(8) Description of the dermatological manifestations,—showing points of affinity and disagreement with Pellagra, lá Pellagre alcoholique of the French, etc. etc.

—o—

No. 29.

THE BACTERIOLOGY OF DENGUE FEVER.

By J. W. McLaughlin, M. D.,
Austin, Texas.

This paper is a review of original investigations in the bacteriology of dengue fever which I made in 1885, during the last epidemic of this disease which visited the Southern

States of North America. To this is added, for the first time, photo-micrographic illustrations of the micrococcus which I then obtained from the blood of persons having dengue fever.

A detailed report of my investigations of dengue was read at the meeting of the American Medical Association, held in St. Louis, in 1886, and was afterward published in the journal of the Association. It is not my purpose now to recapitulate at any length the results of the work done at that time, nor to add new facts, as I have had no opportunity since then, of testing my results by additional investigations, I desire simply to submit for your examination some photo-micrographic illustrations of jelly cultures of the dengue micrococcus, which were made for me by Dr. William Gray, of the Army Medical Museum at Washington, D. C., and ask that you consider these in connection with the remarks which are needed to intelligibly present the subject.

An inspection of the photo-micrographs herein reproduced will reveal group-arrangements of the micrococcus that are distinctive of this micro-organism, and which so far as I can learn, are not found in other pathogenic bacteria. I regard this a matter of importance, and, to a large extent, I rest the claim that this microbe is intimately, if not causatively, associated with dengue fever, upon the characteristic groupings of this micrococcus. But aside from the probabilities thus furnished of this being the specific coccus of dengue, its unique group-arrangements renders this micro-organism a matter of considerable biologic interest; these are clearly shown in the photo-micrographs, especially in *Fig. 1.* A casual inspection of this figure will reveal several filaments which, on closer attention, it will be seen, are composed of segments which contain a number of cocci, grouped around a central coccus of larger size, perhaps an arthrospore; segments and cocci are all imbedded in a matrix-like substance, which is probably micro-protein, to form the filaments which, it is seen, are all of the same pattern.

The next photograph, *Fig. 2*, represents a different grouping of this coccus which occurs in the development cycle of its life history. Here the filaments are seen undergoing dissolution; while the segments, which have become separated, are spread out in circular-shaped masses and which form an irregular mosaic in the picture. A further separation of the cocci into irregular groupings, with a total disappearance of the filaments, is shown in the next picture, *Fig. 3.* Here the grouping resembles staphylococci, and to a less extent, strepto-cocci in their arrangements.

Now, these three photo-micrographs, representing distinct and different group-forms of the same coccus—which, however, bear a relationship to each other,—were obtained from the same mounted preparation of jelly culture; and as the same group-forms were constantly found in other mounts, the conclusion that they represent development-stages in the biological history of this micro-organism seems well taken. And, furthermore, as this grouping has never been observed in other pathogenic bacteria, and is characteristic and distinctive of the cultures of the micro-organism which I obtained from the blood of dengue fever subjects, I feel justified in claiming that it is intimately, if not causatively, associated with this disease.

The cultures of dengue micrococci from which these photo-micrographs were obtained, were made by introducing into test tubes of sterilized Miquel's lichen-jelly, the small quantity of blood from a dengue fever subject that would adhere to the point of a sterilized platinum wire. Of course, all necessary precautions against the entrance of other microbes than those conveyed from the subject with the blood, were scrupulously taken. That my efforts in this direction were successful is testified by expert bacteriologists who have pronounced the cultures thus obtained, to be pure.

The tubes of sterilized jelly, after their inoculation with dengue blood, were kept at 100 degrees F., in a culture-oven for periods of time varying from three to twenty days, and re-inoculations, from one tube containing a culture, to another containing only sterilized jelly, were made from time to time during a period of six months. I was fortunate in keeping the

cultures pure during this entire time, and all the tubes which I examined, with a few exception only, contained pure cultures of the dengue micrococcus.

These culture micro-organisms were readily stained by all the aniline dyes to which they were submitted, with the exception of the brown colors—vesuvin and Bismark brown—which failed to have any selective action whatever; but I obtained the best results from methyl-violet, which was found to be of especial value in bringing out the cocci and segments of the filaments. When unstained these bodies—filaments—appear as continuous tubular bacilli with highly refractive granules distributed within their central cavities, and do not show either cocci or segments. But when the cocci which have been separated from the filamentous groupings are examined they can be distinctly seen, without any staining whatever, as reddish-brown colored bodies in active commotion; the color is most distinct when the cocci are massed together in considerable numbers, less distinct when they are examined separately.

Blood of dengue fever was microscopically examined by various methods. For example: it was examined in the fluid state immediately after its removal from the veins. It was dried on cover-glasses, then flamed and submitted to various staining dyes and chemical agents. And, finally, blood was aspirated from the veins of a dengue patient into a series of glass bulbs blown upon a glass tube (Liebig's potash bulbs). The end of the tube nearest the arm of the donor was then closed by a blow-pipe (the other end having been previously closed by packing with sterilized cotton), and the apparatus was put into a culture-oven at 100 degrees F. The blood was thus made a culture-medium for the growth of any bacteria it contained. At various periods of time a bulb was removed by the blow-pipe, and its contained blood was examined by the methods referred to.

This method of culture proved quite satisfactory, as it furnished a large number of cocci in a small quantity of blood; and I think this a valuable means to examine blood in acute infectious diseases for bacteria, especially when these are found only in inconsiderable numbers in fresh drawn blood. In the instance under consideration the blood in the bulbs, removed at various times, was found swarming with micrococci. In a few instances I saw in this blood what appeared as filaments, but on this point I cannot be positive, owing to my inability to find a selective stain for blood preparations; that is, a stain which the cocci would hold after its removal, by washing or decolorizing agents, from the blood cells. I am sure, however, that no filaments were ever found in fresh drawn blood from dengue patients—about forty in number—whose blood I examined.

Blood taken from the culture bulbs, if examined in a fluid condition, and without staining or other reagents, contained what appeared to be innumerable pigment granules floating in the plasma; the cell-elements of the blood were also seen, normal in size, shape and numbers. But when cover-glass preparations of this blood were stained by Löffler's solution of methyl-blue, or by first submitting them to sulphuric acid for a few seconds, then washing and floating them on Lugol's solution of iodine, that which first appeared as pigment granules is now seen to be cocci, variously grouped, and located both within the cells and plasma. I do not recollect to have seen cocci within the cells of fresh drawn dengue blood, but this was constantly found in the blood from the bulbs. The difficulty which I encountered in fixing the stain in the cocci with a degree of permanency that would enable me to resist the washes required to decolorize the blood cell, was a source of much annoyance, and interfered with my efforts to display the presence of the cocci in the blood, and their relation to its cell-elements. In fact I succeded with but a single aniline stain, and with this imperfectly in accomplishing this result.

By floating cover-glass preparations of dengue blood on Löffler's methyl-blue solution for twenty-four hours, at 100 degrees F., the cocci were found to retain the blue color after this had been removed from the blood cells. This method of staining blood preparations was

found out late in my work, when fresh dengue blood was no longer to be obtained, and was used only with the blood taken from the culture bulbs. In these preparations the cocci were found both within and without the blood cells, and, what is somewhat singular, they were not of uniform size; some were as large again as others, and often a central body of deeper color was seen surrounded by a halo of paler color, like a central coccus and surrounding capsule. Some months ago I sent the only remaining preparation of this kind I had to a gentleman, expert in photo-micography, with a request to photograph it. I had hoped to receive the picture in time to reproduce it here, but in this I have been disappointed.

In place of this, I invite your attention to a picture obtained by first applying sulphuric acid for a second or two to cover-glass preparations of blood from the culture bulbs, and then staining them with Lugol's solution of iodine. The appearances obtained by this method are well shown in *Fig. 4*—a photograph prepared for me by Dr. R. Menger, of San Antonio, Texas.

Some remarkable results were obtained by applying glacial acetic acid to cover-glass preparations of freshly drawn dengue blood. Several cover-glass preparations of fresh blood, taken from the last patient I saw having dengue fever in 1885, were flamed, and then submitted to the action of glacial acetic acid. When these were examined with a dry one-sixth, or better, with a one-twelfth oil emulsion, numerous ovoid cocci, of a yellow-brown color were seen in the blood plasma. The blood cells,—which could be distinctly seen,—were normal in appearance and numbers, and did not contain any of these ovoid bodies. Unfortunately, the number of preparations of blood thus treated, which I examined, were too few, and all coming from the same individual, do not furnish sufficient evidence on which to base a positive opinion. But if these results are confirmed by future investigations they will be valuable for diagnostic purposes. The difference in shape and size between the cocci seen in these preparations and those obtained from jelly and blood cultures is due, I think, to the action of the acid on the capsule of the coccus.

In conclusion, I wish to say, that these investigations were made in 1885,—before very little, if any, original work in the bacteriology had been done in this country. All of the apparatus used by me was extemporized, and the work was done by a general practitioner without technical training, other than can be acquired by any educated physician who will give the subject careful investigation and study. I request, therefore, that these facts be considered by those who would too closely criticise the imperfections of this work. I admit there are many, especially when viewed from the present advanced standpoint of bacteriology.

———o———

No. 30.

CULTURE OF ANAEROBIC BACTERIA.

By F. G. Novy, Sc. D., M. D.,
Ann Harbor, Michigan.

The first part of this paper contains a brief résumé of the principles and methods employed in the culture of anaerobic bacteria. The methods are described under five heads:

(1) Exclusion of oxygen.
(2) Exhaustion of air.

(3) Absorption of oxygen.
(4) Displacement of oxygen.
(5) Cultures in the presence of air.

The second part is experimental and includes detailed descriptions of a convenient and very simple apparatus for the culture of anaerobic bacteria either in vacuum or in an atmosphere of some indifferent gas. The apparatus which is described, moreover, does away with the use of such special and expensive culture tubes as those of Liborius, permits the making of large serial cultures, the use of various culture media, whether solid or liquid, and also enables streak cultures on agar and Esmarch roll tubes cultures to be made. The usual sealing in a flame is discarded and replaced by a more convenient procedure.

The culture media employed for the growth of anaerobic bacteria are also discussed and the value of peptone, glucose and gelatine additions carefully pointed out. The addition of litmus is shown to possess some valuable properties. Pure cultures of anaerobic bacteria can be readily obtained even in the presence of air with as much ease as ordinary ærobic cultures. The common anaerobic bacteria can thus be cultivated without any special apparatus and such cultures furthermore possess the advantage of retaining their vitality for a considerable length of time.

———o———

No. 31.

TWO CASES OF ANÆMIA DUE TO THE ANKYLOSTOMA DUODENALE.

By Dr. J. B. Agnoli,
"Victor Manuel" Hospital, Lima, Peru.

Helminthological, clinical and medico-geographical considerations are made from the two cases. The most important points are:

(1) The prevalent opinion that the number of eggs found in the dejecta corresponds with the number of parasites is erroneous. The formula given, that to 1000 ankylostoma, 150–180 eggs in each centigramme of dejecta should correspond, is found faulty. In one of our cases there existed only 378 parasites, and each centigramme of fæces yielded 500 eggs.

(2) The relatively small number of parasites, and the gravity of the symptoms in both cases favor the view that there is some toxic influence besides the loss of blood. The large number of solutions of continuity in the mucous membrane must favor the absorption of toxic materials.

(3) The blood count by the Thoma Zeiss instrument, and the estimate of hæmoglobin by the chromo-cytometre of Bizzozero, before and after the anthel-minthic treatment show that the loss of hæmoglobin far exceeds that of red corpuscles, and that in the process of recovery the increase of hæmoglobin becomes excessive.

(4) The two cases reported are the first that have been observed in the Republic of Peru. Contradictory opinions have not been substantiated.

(5) The study of reports concerning the anæmiæ of the river districts of Peru, leads the author to suspect that the ankyloma play an important part in their production.

Since the writing of the above a third case has been observed in the same hospital, confirming the opinions here expressed.

Lima, June, 1893.

No. 32.

A CONTRIBUTION TO THE CLINICAL STUDY OF PROLONGED REMITTENT FEVER.

By David Lobo, M. D.,

Formerly Lecturer on Physiology at the Central University, Caracas, Venezuela; Member of the Society of Physicians and Surgeons, Caracas.

It is my purpose to describe a certain form of malarial injection which, I believe, has received very little attention from standard writers on tropical diseases. The description is based on clinics exclusively, refers to the various individual conditions, and is intended to impart my personal views in regard to the malady as it occurs at Caracas.

ETIOLOGY.

The normal type of malarial fever, the intermittent form, is rarely met with in said city, and its presence, when noticed, can generally be traced to an original exception at some of the genuine sources of the injection. Close examination will seldom succeed in detecting any marked congestion of the liver and spleen in cases developing within the bounds of the city. This congestion can not, therefore, be regarded as a characteristic manifestation of the fever under consideration. The aspect and extraordinary course of the pyrexia are probably due to corresponding variations in the power and quality of Laveran's corpuscles, to over-poisoning of the blood, or to some distinct element operating simultaneously with the paludal germ. Investigations in this direction have not as yet been made.

GENERAL SYMPTOMS.

Temperature.—Variations in temperature do not respond to any fixed law of recurrence. It generally ranges from 38°.5 to 40°.5 C., and drops or rises unexpectedly. Remissions take place at any moment of the day. Intermissions may recur, but they should never be trusted. *Chills* and *sweating* may be observed, but never as definite stages of the fever.

SPECIAL SYMPTOMS.

Circulation and *respiration* do not exhibit any deviations, except those induced by the reaction of the organism under the influence of abnormal heat. Divergencies between pulse or respiration, and temperature, should be looked to and carefully treated.

Digestion.—Appetite, either very poor or absent. Tongue smooth, clean and moist. Bowels generally act well, but diarrhœa or constipation is sometimes present. Intense abdominal pain, miteorism, profuse diarrhœa, and obstinate constipation are indicative of some complication located in the intestines. Vomiting may occur, but it is never distressing.

Urine offers no change worth mentioning. The excretion of albumen or blood is *never* observed.

Liver and Spleen.—In respect to these organs, reference is made to the preliminary considerations contained in this abstract. But I desire to lay particular stress on the fact that the spleen is seldom enlarged or congested in long remittent fever.

Nervous System.—Headache and vertigo are not common symptoms. Delirium is never present. There is no impairment of sensibility and mobility.

COURSE, DURATION.

The fever frequently runs its entire course free from complications. There are serious incidents generally; their gravity depends on the importance of the organ attached. Defervescence takes place, either gradually or by crisis. The former process is more common. As regards duration, remittent fever is not governed by any cyclic law, as typhoid or yellow fever are wont to be. The briefest term ranges from fifteen to twenty days; the longest extends to three months, seldom more. The average duration can be estimated at thirty-five days.

It is obvious, from the preceding description, that the whole clinical history of the disease may be condensed into two prominent facts, viz., an irregular temperature and a long, weary course.

DIAGNOSIS.

The main points by which long remittent fever can be discriminated from other *malarial forms*, are its uncommon course, its irregular temperature, the absence of marked stages and of hepatic or splenic troubles, and its resistance to quinine.

Between it and *typhoid*, there is no possible confusion; typhoid is cyclic in its career, is accompanied by intestinal lesions, presents peculiar eruptions and is extremely rare at Caracas.

The so-called *typo-malarial* fever exhibits typhoid symptoms, which are never present in ordinary remittent.

Vomiting of black matter and albuminuria are perfectly distinctive of *yellow fever*.[4] The course of this never exceeds ten days.

Pernicious fevers are sufficiently distinguished by their short duration and characteristic aspect.

PROGNOSIS.

Where complicating or intercurring processes do not occur, a fatal issue is seldom to be feared. High temperature, extreme weakness, frequent vomiting, copious sweating, and diarrhœa, generally impart a serious character to the disease.

Prognosis is entirely different, when we have to deal with organic complications. In order of gravity, cerebral disorders rank first, and are followed by pulmonary congestion, entero-colitis with watery discharges, intestinal ulceration and peritonitis. Congestion of the liver recedes under proper treatment. *Measles*, as an accident, occurred in one of my cases; this is the only intercurring disease I have ever observed.

COMPLICATION.

The fever may give rise to a special inflammation of the lung, to which the term *pseudo-pneumonia* can be properly assigned. Crepitant rales are seldom heard. Tube-respiration is an early sign. Sputa are viscid, scanty and bloody, but seldom rusty. Pain is generally absent. The seat of the fluxion is subject to frequent change. The pleura are sometimes included in the process.

Among nervous complications, none is so terrible as *cerebral congestion*. It may assume a *convulsive* or a *comatose* form, but the latter is more common. The convulsive form is probably due to meningeal congestion. The issue is fatal in nine cases out of ten. Encephalitis, localized lesions, and spinal derangements, I have never seen to complicate the fever.

Hepatic congestion is also a possible occurrence, but is not necessarily connected with the disease. It yields speedily to remedial agents. *Abscess* of the liver is very rare.

Acute entero colitis, dysentery and *choleriform diarrhœa* are fearful complications, as they often lead to a fatal result. *Hæmorrhage* and *acute peritonitis* are apt to occur as secondary phenomena, subsequently to ulceration of the digestive duct. The *kidneys* generally undergo no injury at all. Urine is *never albuminous.*

TREATMENT.

Long remittent fever is very slowly influenced by quinine. There are cases in which the drug is absolutely useless, whether it be given in large or small doses. If administered to excess, it is apt to cause irritation of the stomach, vomiting, diarrhœa, heart depression and collapse. The view that quinine will prevent complications, is merely hypothetic.

Aconite, arsenic and *carbolic acid* may be resorted to, in protracted cases. I place very little confidence in their action.

Warburg's fever tincture is a valuable remedy. *Salicylate of sodium, antipyrine, antifebrine,* and similar agents will surely act on temperature, but their effect should be carefully watched.

Tonics should be ordered *larga manu.*

Chlorate, iodide and *bromide of potassium* are indicated in very chronic cases.

Cool baths or *lotions* are an innocent and efficient means of lowering the temperature. They must not be spared.

A *proper diet* should be prescribed from the first, including good wine and diluted brandy. Complications call for a special treatment, entirely dependent on the nature of each case.

WASHINGTON, D. C.

———o———

No. 33.

THE NATURE OF THE GERMICIDAL CONSTITUENT OF BLOOD SERUM.

BY VICTOR C. VAUGHAN AND CHARLES T. MCCLINTOCK.

The germicidal constituent of blood serum is not serum albumin, as has been held by German authorities, but is a nuclein. This is demonstrated in the following manner:

Blood serum is treated with about ten volumes of a mixture of equal portions of absolute alcohol and ether. This precipitates all of the protoids present. The precipitated mass after eliminating the alcohol and ether, is digested as long as peptones are formed with hydrochlorine acid and pepsine. The undigested portion consisting of nuclein, is dissolved in dilute alkali and is found to have all the germicidal properties of the original serum.

———o———

No. 34.

ABSTRACT ON VASOMOTOR ATAXIA.

BY SOLOMON SOLIS-COHEN, A.M., M.D.,

Professor of Clinical Medicine and Applied Therapeutics in the Philadelphia Polyclinic, one of the Physicians to the Philadelphia Hospital, etc.

(1) By the term vasomotor ataxia it is proposed to designate the condition of instability of the mechanism of circulation present in certain persons and characterized by abnormal readiness of disturbance with tardiness of restoration, of the equilibrium of the cardio-vascular apparatus. The manifestations are most strikingly displayed in the terminal vessels and

occur chiefly under the action of external influences, especially cold; of toxic agents; and of emotion. The stimulus may be applied centrally or peripherally but in each case the resulting phenomena indicate a defect of central inhibition.

(2) Vasomotor ataxia is in many cases congenital; in some inherited; the condition is not rarely present in several members of a family.

(3) In some cases the phenomena are of paretic, in others of spasmodic character. Usually the two kinds of phenomena are displayed in varying degree in the same patient. Whether spasmodic or paretic the symptoms are suggestive of inco-ordination.

(4) In exophthalmic goitre especially such cases as are produced by emotion or are markedly intermittent, is found the extreme type of the paretic variety of vasomotor ataxia.

(5) The form of Raynaud's disease, known as "local syncope" furnishes an extreme type of the spasmodic variety; while "local asphyxia" exhibits both spasmodic and paretic phenomena.

(6) Between these extremes are numberless gradations down to the slightest departure from normality; while even the extreme symptom-groups represent merely exaggerations of phenomena that under certain conditions occur in normal individuals.

(7) Dermographism is an essential feature of vasomotor ataxia and in most cases, factitious urticaria can be readily produced by cold or by pressure or by both; mottlings of the skin, certain peculiar markings of the nails, teleangiectases and stigmata are common.

(8) There is usually a hæmorrhagic tendency as shown by ecchymoses, petechiæ, epistaxis, hemoptysis, hæmatemesis, hæmaturia, and retinal hæmorrhage.

(9) Even in the absence of hematuria, red blood cells are often found in the urine; uric acid, urates and oxalates are likewise common; the presence of albumin, tube casts and cylindroids is less common, and is usually intermittent. Glycosuria has been observed.

(10) In many striking cases there has appeared to be morbid alteration of the thyroid gland.

(11) The action of the heart is usually rapid, irregular and easily disturbed; palpitation is common, and in some cases intermittent tachycardia has been noticed. Hæmic and functional murmurs are not uncommon.

(12) Among other symptoms and morbid associations observed are drugidiosyncrasies, urticaria, local œdema, angina pectoris and pseudo-angina, hyperidrosis, asthma, hay fever, vertigo, migraine and other forms of headache, transient hemiopia and other visual disturbance, persistent mydriaits, astigmatism, myopia, hyperopia, menstrual irregularities, intermittent polyuria, rheumatism, chorea, epilepsy, neurasthenia, gastralgia, enteralgia and membraneous enteritis; most of which are doubtless related as effects of a common cause, or as secondary results.

(13) The development of pulmonary tuberculosis in some cases, is probably a sequence of vascular and trophic disturbance in the lung.

—o—

No. 35. "Recent Experiences in Croupous Pneumonia with Observations on Treatment by Subcutaneous Inspections of Saline Solutions," by R. F. Cunningham, M. D., Birmingham, Ala.

[Abstract not furnished.]

—o—

No. 36. "Cholera, its Diagnosis, Prognosis and Treatment," by J. M. Hurley, M. D., San Bernardino, California.

[Abstract not furnished.]

No. 37.

ASIATIC CHOLERA.

By Major Dr. Santiago Hernandez,
Of the Spanish Army.

Cholera has its origin in the delta of the Ganges. From hence the disease traveled in 1817 to Persia, Egypt and China, over land and along the course of rivers. It reached Europe by the sea route in 1830.

The second epidemic, 1846, commenced near Salian, in the Gulf of Persia, and extended to Bacon, Derbet, Kouva, Tiflis; it crossed the Volga, and invaded Russia, Germany, Italy, France and Spain.

The third epidemic, 1875, made its appearance in Alexandria, extended along the shores of the Mediterranean and reached America.

The fourth epidemic invaded Cochin China, extended into Europe and reached the ports of the Mediterranean in 1885.

The fifth, 1892, coming, like its predecessors from the East, reached Russia, and traveled along the Mediterranean to Europe; there it became localized in Hamburg.

This pahdemic disease is transmitted by merchandise, thus proving that it is eminently contagious.

The germ of the disease may lie dormant for some time, and regain its activity after a period of time that has not yet been determined.

The cholera bacillus assumes different morphological and pathogenic properties according to the media where it grows. The best known forms are the granula, the comma, the spirillum and spirochecæ.

The leucomaines of the comma bacillus do not impede their pathogenic action.

Antiseptic solutions arrest the growth of the bacillus.

There is no lesion characteristic of cholera. The most marked changes are found in the blood. The intestinal diapedesis of the rice-water liquid cannot be accounted for by the shedding of the epithelial lining.

The prophylaxis against cholera depends upon a careful selection of food and drink; these should be sterilized. The infection is not transmitted through the air.

Attenuated cultures have no prophylactic action.

There is no specific treatment for cholera. All forms of treatment are symptomatic and unreliable. The most reasonable consist in the administration of antiseptics, by the stomach, and the hypodermic injection of sterilized saline solutions.

June, 1893.

———o———

No. 38.

THE IMPORTANCE OF ELIMINATING PELVIC DISEASES IN GENERAL DIAGNOSIS.

By Mary H. McLean,
St. Louis, Missouri.

A reference is made to the charge brought against the meddlesome gynæcologist by the general practitioner and reasons are stated for making counter charges against the negligent practitioner. The intimate relations existing between the pelvic organs and the sympathetic

nervous system should lead one always to recognize the possibility of a causative or complicating pelvic disease in fevers and nervous and digestive disorders among women. Chronic invalidism and death are the results of ignoring such a possibility. Cases are cited illustrating the impotence of general therapeutics extended through weeks of fever or years of invalidism owing to unrecognized pelvic troubles which constitute the real pathological condition.

———o———

No. 39.

THE NEED OF RESEARCH IN PREVENTIVE MEDICINE.

By J. M. Postle,
Hinckly, Illinois.

The author makes the following suggestions:

(1) That the Pan-American Medical Congress petition the general government of the United States to establish on a permanent basis a government laboratory in which bacteriological research may be prosecuted.

(2) That the results of the research done in this laboratory be printed in book form and distributed to the physicians of the country at a nominal cost which will pay for the printing.

(3) That the general government take charge of all examinations of those who wish to practice medicine in the United States.

———o———

No. 40.

ABSTRACT CLINICAL NOTES ON AMŒBIC DYSENTERY.

By H. A. West, M. D.,
Professor of Practice of Medicine, University of Texas; Secretary of State Medical Association, Galveston, Texas.

Practical importance of the subject in consequence of the diversity of opinion in regard to the definition, varieties and etiology of dysentery, and especially the non-recognition by the general medical profession of the casual relations of the amœba colli in the production of dysentery and the wide dissemination and frequent occurrence of this form of the disease.

Attention is called to the following points:

(1) Importance of a correct definition. Dysentery is not, as is usually taught, a morbid entity, consisting of an inflammation of the large intestine essentially the same in all forms and climates, varying only according to climatic and other modifying conditions; on the contrary the term dysentery should be used in a general sense to express a group of inflammations of the large intestine partly of specific and partly of non-specific origin.

(2) The adoption of the following classification will do much toward dissipating the existing confusion, viz., acute catarrhal, acute diphtheritic, amœbic, and secondary dysentery.

(3) Amœbic dysentery is more widely disseminated and occurs with greater frequency than is generally supposed.

(4) To emphasize the probable entrance of the amœba through impure drinking water.

(5) To note the characteristic and uniform symptoms of this form of dysentery.

(6) The essential chronicity and difficult cure depending upon the character and location of the lesions.

(7) The necessity of combating the excessive anæmia and wasting by the use of a more liberal diet than is generally prescribed.

(8) To urge the importance of cleansing and antiseptic irrigations as a rational method of reaching and destroying the amœba, and stimulating the intestinal ulcers to heal.

(9) To note the fact that while solutions of quinine are destructive to the amœba, injections of the same fail to exercise any marked curative effect.

(10) My experience going to show that mild injections of nitrate of silver, 30 grains to a quart with occasional administration of salines and large doses of bismuth and salol constitutes the best treatment. Details of seven cases illustrative of the above points treated in the John Sealy Hospital, Galveston, Texas, from October, 1892, to June 1, 1893, showing the comparative frequency of this form of dysentery in this locality, there were only two or three cases of catarrhal, and none of diphtheritic or secondary forms admitted during this period. Two of them originated upon the same steamship in Vera Cruz, the facts strongly pointing to infection through the drinking water. One acquired the disease while traveling through Indian Territory and North Texas, one was from Arkansas, having lived for some time in the alluvial bottoms of the Mississippi and Red Rivers. These two also drank impure and stagnant water. The other three cases originated in Galveston, or its immediate vicinity, and no history of infected water could be obtained. The symptoms in these cases were very uniform, though they might begin acutely, they would very soon become chronic, and are characterized by irregularity in the flux as to character and frequency of the stools, alternating between improvement and relapse. The difficult cure and chronicity depending upon the nature of the lesions, viz., ulceration of different portions of the large intestine and sometimes of the ileum, with a disposition to infiltration and undermining of the mucous membrane, affording a nidus for the development, growth, multiplication and destructive work of the micro-organisms. The nature of the disease is such as to produce very rapid anæmia and wasting. It is necessary to combat these results by the plentiful use of nitrogenous food—meat, fowls, eggs, rich broths, milk, etc.; if restricted to a milk diet these patients will very rapidly fail.

The character of the lesions gives the key to the most successful treatment, viz., consisting of thorough irrigation of the intestine, first with simple warm water for cleansing purposes; second, with an antiseptic solution for destroying the organisms, and stimulating the ulcers to heal. For the latter purpose, I have tried solutions of quinia, creolin and silver nitrate, the latter has given the best results. Quinia, in my experience, failing to accomplish any permanent good. While not attempting to explain mode of action, large doses of bismuth subnitrate and salol seem to have had a distinct effect in controlling the excessive frequency of the stools. Salines also at times are beneficial, their mode of action probably consisting simply of a cleansing effect, in sweeping out irritants of various kinds.

GALVESTON, July 20, 1893.

—o—

No. 41. "Some American Ideas about Chronic Diarrhoea," by EPHRAIM CUTTER, New York City, N. Y. [Abstract received too late for publication.]

—o—

No. 42. "Tratamento medico del vomito negro," by SEGUNDO BELLVER MATEO, Havana, Cuba. [Abstract received too late for publication.]

No 43. "The Principles of Immunity and Cure in the Infectious Diseases," by VICTOR C. VAUGHAN, M. D., Ann Arbor, Mich. [Formal Address.]

——o——

No. 44. "Forced Respiration—Fell Method—A Plea for its General Adoption in Hospital and Naval Practice," by GEO. E. FELL, Buffalo, N. Y., U. S. A.
[Abstract received too late for publication.]

——o——

No. 45. "Some Medical Facts connected with the Discovery of America," by A. M. FERNANDEZ DE YBARRA, A. B., M. D., New York City, N. Y.

The principal object of this paper on medical history is to state the probable disease that caused the death of Christopher Columbus, and his ailments during his voyages of discovery in America; also those of the Pinzones and a few other discoverers of American lands.

SECTION ON GENERAL SURGERY.

HONORARY PRESIDENTS:

Dr. E. Andrews, Chicago, Ill.; Dr. Manuel Barros Borgoño, Santiago, Chile; Dr. Wm. T. Briggs, Nashville, Tenn.; Dr. Jos. D. Bryant, New York, N.Y.; Dr. P. S. Conner, Cincinnati, O.; Dr. N. P. Dandridge, Cincinnati, O.; Dr. E. H. Gregory, St. Louis, Mo.; Dr. W. T. Halstead, Baltimore, Md.; Dr. W. W. Keen, Philadelphia, Pa.; Dr. Levi Cooper Lane, San Francisco, Cal.; Dr. Rafael Lavista, City of Mexico, Mexico; Dr. Samuel Logan, New Orleans, La.; Dr. Claudius H. Mastin, Mobile, Ala.; Dr. E. M. Moore, Rochester, N. Y.; Dr. Julius Mundt, Comayagua, Honduras; Dr. Wm. H. Pancoast, Philadelphia, Pa.; Dr. John B. Roberts, Philadelphia, Pa.; Dr. Louis A. Sayre, New York, N. Y.; Dr. Casimiro Saez, Havana, Cuba; Dr. N. Senn, Chicago, Ill.; Dr. Belasario Sosa, Lima, Peru; Dr. J. Ford Thompson, Washington, D. C.; Dr. J. Collins Warren, Boston, Mass.; Dr. John A. Wyeth, New York, N. Y.; Dr. D. W. Yandell, Louisville, Ky. Dr. Rudolph Mates, New Orleans, La.

EXECUTIVE PRESIDENT:

Dr. John B. Hamilton, 20 Custom House, Chicago, Ill.

SECRETARIES:

Dr. Joseph Ransohoff (English-Speaking), 296 Walnut Street, Cincinnati, O.	Dr. W. H. Heath (Spanish-Speaking), 415 Pearl Street, Buffalo, N. Y.
Dr. Pirovano, [Florida 251,] . . . . . Buenos Aires,	. . . . . Argentine Republic.
Dr. Ricardo Guzman, ... La Paz,	. . . . . Bolivia.
Dr. A. P. Boon . . . . . St. Kitts,	. . . . . Br. West Indies.
Dr. T. G. Roddick, ... Montreal,	. . . . . Canada.
Dr. Rafael Rocha Castilla [Carrera 6 No. 285] Bogota,	. . . . . Rep. of Colombia.
Dr. Panfilio J. Valverdé, ... San Jose,	. . . . . Costa Rica.
Dr. Raimundo Menocal, [Dragones 2] . . . . Havana,	. . . . . Cuba.
Dr. Erichsen, ... St. Thomas,	. . . . . Danish West Indies.
Dr. D. E. Gueside . . . . . Point à Pitre	. . . . . Guadeloupe, F. W. I.
Dr. Juan Padilla Matute, ... Guatemala City,	. . . . . Guatemala.
Dr. Leon Audain, ... Port au Prince,	. . . . . Haiti.
Dr. G. P. Andrews, ... Honolulu,	. . . . . Hawaii.
Dr. R. Pineda, ... Tegucigalpa,	. . . . . Honduras.
Dr. Regino Gonzalez, [Cordovanes No. 4,] . . City of Mexico,	. . . . . Mexico.
Dr. Velasquez, ... Managua,	. . . . . Nicaragua.
Dr. Lucas A. de O. Catta Preta, ... Rio de Janeiro,	. . . . . U. S. of Brazil.
Dr. José Pugnalin, [Mercedes 280,] . . . . . Montevideo,	. . . . . Uruguay.
Dr. David Lobo, ... Caracas,	. . . . . Venezuela.

SECTION ON GENERAL SURGERY.

Section of Orthopedic Surgery has been Incorporated in this Section.

No. 51.

THE TREATMENT OF POTT'S DISEASE OF THE SPINE.

By A. B. Judson, M. D.,
New York City.

Articular osteitis in the middle region of the spine is more intractable than in the regions above and below, for mechanical reasons. The vertebrae here are exposed to disturbance by the respiratory movements. Below the vertebral bodies are so large that they do not soon give up their relations of mutual support, and above the superincumbent weight is less. We cannot cut short the disease by operative or other interference, but must expect with confidence the intervention of the natural reparative processes. A brace should be applied with the purpose of transferring the weight so far as is practicable from the bodies of the vertebrae, in which the disease is found, to the processes which remain sound. It does not take much experience to convince one that efficient pressure applied in this manner is productive of good. It may not at once arrest morbid action and induce repair of the carious bone. For these events we must wait for the natural reaction; but it is not difficult to believe that nature will the more promptly intervene if our mechanical applications relieve pain and substitute a feeling of strength for weakness and apprehension. The brace should be made chiefly of mild steel, which gives the surgeon the power to modify the degree and direction of pressure to the changing shape and to meet the increasing tolerance of pressure. The details of treatment require patient and minute attention.

——o——

No. 52.

THE PROBABLE CAUSE OF THE LIMP OF THE FIRST AND SECOND STAGES OF HIP DISEASE.

By Harry M. Sherman, A. M., M. D.,
San Francisco, Cal.

It is noted in almost all the descriptions of the invasion of the ordinary form of hip-joint disease—osteo-arthritic tuberculosis—that the initial symptom is the limp; that the limp lasts a variable time and increases, and then follow night-cries and complaints of pain in the day time. These are the classical symptoms of the first stage of the disease, the stage before the development of deformity.

In the second stage the symptoms are often not much changed except in intensity, but examination shows the motions of the joint more or less checked in one or more or all directions. Still, within the range of permitted motion this is free and painless, and it is within this range that the joint is used in the act of walking, and evidently used painlessly.

In this second stage, with joint motions crippled by muscular rigidity, it is inconceivable that the gait should be even and smooth, but what causes the limp in the first stage, when there can be found but the slightest amount of checked motion, or none at all? And what causes the limp of the second stage beyond that due to the checked motion?

The chief characteristic of the hip limp is a lateral sway of the body toward the affected side, while the body weight is supported by the diseased joint.

The usual site of the initial infection is in the neck of the femur on the diaphyseal side of the epiphyseal cartilage. From this point the process extends downward into the trochanter and, by a subperiosteal route, it passes around the epiphyseal cartilage and involves the epiphysis. Under the stimulus of the bacillary product the cancelli of the bone become crowded with a round cell infiltration, the trabeculae waste, circulation is cut off and cheesy or fatty change of the pathological product follows.

The inevitable result of the wasting of the trabeculae is a structural weakness of the bone. Its resistance to strain is lessened directly as its substance is lessened.

The suggestion is here made that it is this structural weakening that is the cause of the painless limp of the hip-joint disease in the first stage, and of that portion of the limp, also painless, of the second stage that is not due to checked motion.

It is argued that in the absence of pain, and in the absence of any change in the form of the bone, or of the opposing articular surfaces, or of any suspension of the function of the muscles around the joint, the structural weakness that must result from the thinning, and even complete disappearance, of the trabeculae in the neck and head of the femur, is the most probable cause of the limp.

—o—

No. 53.

THE MECHANICAL TREATMENT OF OSTEO-ARTHRITIS OF THE KNEE.

By Henry Ling Taylor, M. D.,
New York.

Osteo-arthritis of the knee, or "white swelling," is usually a tubercular process, beginning in an adjacent epiphysis or in the synovial membrane, and, if unchecked, finally involves most of the joint structures. It is accompanied by the usual symptoms of chronic joint inflammation, of which spasm and atrophy of the muscles acting upon the joint are practically the most important, as indicating most exactly the degree of joint irritation; and, also, by certain characteristic deformities at the knee, namely flexion, eversion, abduction (genu valgum), and subluxation backwards of the head of the tibia. The deformities are due to the mechanical conditions under which the spasmodically irritated thigh muscles act.

The general indication for treatment is to improve the nutrition of the patient, and thus insure a blood supply of good quality to the diseased area, facilitating the reparative process. One of the most gratifying results of proper mechanical treatment is the marked and speedy gain in general health and vigor.

The local indications for treatment are to inaugurate and promote the process of repair at the site of disease, and to prevent or correct deformity, in order to restore, so far as possible, the functions of the joint. These local indications are met by mechanically providing conditions favoring the relaxation of the spasmodically contracted muscles, a normal local circulation, gradual correction of the deformity and, later, the protected use of the joint. In the stage of irritation and disintegration strict local rest is enforced by the use of an apparatus giving counter-extension and fixation, and for a month or two the patient is kept recumbent. When the local circulation and position of the limb has sufficiently improved, locomotion is permitted first with, later without, crutches, but always protected by the apparatus. After a considerable period of such enforced rest, during which the reparative process is completed, the neuro-muscular apparatus should be regulated and strengthened by allowing limited motion at the joint; last of all, the joint may be gradually trained to bear weight, as a preparation for discarding all treatment.

The Dow's supporting and protective apparatus with a lock-joint at the knee, as described in the paper, may be used to meet all these varied indications; the aim of the author, however, is not to advocate the use of any particular apparatus, but to point out the varying indications presented by the disease in its different stages, and that the elements of protection artificially supplied should vary to correspond. Protection from external and internal trauma with progressive replacement of distorted parts should be furnished at all stages, at first with enforced disuse, later with protected use, limited by the operator to meet the conditions present.

—o—

No. 54. Paper by Dr. Bernando Herrera, Caracas, Venezuela.
[Neither Title nor Abstract furnished.]

—o—

No. 55. Paper by Dr. Juan M. Escolana, Caracas, Venezuela.
[Neither Title nor Abstract furnished.]

—o—

No. 56.

UNUNITED FRACTURE.

By Lewellyn Eliot, A. M., M. D.,
Washington, D. C.

Definition.—Pseudarthosis or ununited fracture is non-union of broken fragments of bone, after the expiration of six or more weeks. This non-union may be temporary or permanent.

Causes.—The causes of this non-union may be either constitutional or local.

Diagnosis.—The diagnosis in cases of non-union is not a difficult matter, as the condition is generally apparent.

Treatment.—The treatment of cases of ununited fracture must be in accord with the cause, whether it be constitutional or local. The constitutional treatment is embraced in all measures which improve nutrition and hasten bone repair. The local treatment consists in such measures as will produce an irritation at the ends of the fragments; resection and wiring the freshened ends, and in some cases, amputation of the member. He favors the open method after resection and wiring. The details of four cases are appended.

—o—

No. 57.

SOME POINTS IN THE SURGICAL TREATMENT OF APPENDICITIS.

By Augustus P. Clarke, A.M., M.D.,
Cambridge, Mass., U. S. A.

From a careful study of the histories of cases coming under the writer's observation during a number of years past, and also from learning in many instances the final results of those cases, the author remarks that it is not unsafe to say that in every case in which there is reason to believe that the vermiform appendix is involved, though the symptoms at first may be mild or transient, the surgeon or medical attendant should be ready to institute measures against the occurrences of sudden surprises and unusal results. There is great probability in almost any event that the appendix, during an attack of inflammation, will become adherent to other parts in the immediate vicinity. In many cases, if not in the most, incision should be made over the point of greatest tenderness; this corresponds to the McBurney point, which is midway between the umbilicus and the superior spinous process of the ilium, and is in the right linca semilunaris. Such an incision will afford an opportunity for free drainage and for flushing the parts with warm carbolized water or with water of the temperature of 115° to 120° containing boracic acid or other antiseptic agents that can safely be introduced into an abscess cavity. A liberal incision when timely made over the tender part has always yielded in the cases occurring in the author's practice an immediate and permanent result. In all cases after the incision has been made the parts should be thoroughly explored; if the appendix is within easy reach it should be brought forward and then sewed off by means of sutures of aseptic kangaroo tendon.

The cordwainer's stitch will be most convenient for accomplishing this. If, however, the appendix is bound down by firm adhesions, or if it cannot be found without much difficulty or without doing excessive violence to the caecum or to other parts, it will be far better to allow it to remain, for its presence, when thus left, will not seriously interfere with the patient's recovery. In most cases when the mesentery or other parts have been sufficiently detached the appendix should not be tied but should be clamped, and then sewed off by means of carbolized animal sutures; as soon as all hemorrhage has been controlled the appendix may be incised about two centimeters from the caecal tissue. In order to prevent adhesions of the stump or base of the pedicle to other structures the peritoneal tissue in immediate vicinity of the margin of the incision should be closely approximated by a subperitoneal suture. The smaller sized kangaroo tendon rendered aseptic should preferably be the material for such use. A thorough closure of the peritoneal surface of the wound thus effected will not only obviate the occurrence of agglutination of the parts

but will also help to prevent the escape into the peritoneum of aseptic matter that may gravitate toward this point, and thus to preclude the occurrence of a fistulous tract. The entire wound should as far as possible be kept in an aseptic condition. Aristol and iodoform will be found to be excellent adjuvants in maintaining this condition of the tissues. The danger of the subsequent occurrence of hernia may be overcome by paying strict attention to the closure of the severed layers that have been divided in the operation; the peritoneum, the muscular tissue, the fascia and the external integument should each be brought together separately. Carbolized animal sutures should be used for this purpose. Entire closure of the wound by the first intension can be effected only in those cases in which the operation has been undertaken in the early stage of the attack. After the formation of an abscess complete union at first cannot be expected to follow because some method for facilitating drainage for a while will have to be employed. The different steps of an operation are much complicated when there is present an unusual abdominal distension; so also it will be in cases in which there is excessive or marked obesity. Trendelenburg's posture in this as in all cases of abdominal section for intestinal affections cannot be overestimated. In those cases in which some means for drainage become necessary every detail in the treatment should receive the strictest attention, for if there should occur any hindrance to a free discharge of the exudation a risk of a dangerous sepsis to the organism will be incurred. In every such case of abdominal section when a drainage tube has been employed, the possibility of the occurrence of hernia should not be overlooked. In all cases, whether the drainage tube has been required or not, a firm binder or a thorough bandaging should be employed; the patient for some weeks should be kept for the most part in the horizontal position. The question often arises—Should the surgeon when called upon in the later stages of a case advise operative interference? In answer to this it may be remarked that our experience in such cases is favorable to the adoption of an exploratory incision. When an operation is undertaken in the later stages the patient must of course assume more risks, for the chances of recovery are much less than when an operation is attempted much earlier though surgical measures at such late date may prevent the rupturing of an abscess into the peritoneal cavity; when there has been such a rupture, removal of the pus, and cleansing of the parts may afford an opportunity for a retrograde process of the disease to take place. Nothing, therefore, but the occurrence of extreme collapse should weigh against the employment of operative measures. In those cases of appendicitis, which have gone on to suppuration before operative measures have been undertaken there may occur secondary abscess in other portions of the abdominal cavity. An operation to insure relief must therefore embrace a course of procedure which will afford a free discharge to all accumulation of purulent exudation; it will sometimes be necessary to make a prolonged dissection at different parts and also to overcome adhesions of an unusual extent. Great care will also have to be exercised lest an opening be made into an adherent intestinal mass. In some instances portions of the epiploon may have become gangrenous; there may occur in the veins of the abdomen an inflammation that may extend outward to the other vascular tissue. In carrying out, for these complications, the necessary surgical treatment, much judgment will have to be exercised and much precaution taken that the dissection or search be not prolonged beyond what may afterward prove to be a beneficial or safe proceeding.

No. 58. A BRIEF SPLINT-TECHNOLOGY FOR SURGEONS.

By Edward A. Tracey, M. D.,
Boston, Mass.

The objects of this paper are: to treat in detail of a new material and method used in surgical splint making,—to urge the surgeon to become the maker of suitable splints for cases occurring in practice,—and to indicate lines of procedure in apparatus making, which promise rich results in general and orthopedic surgery.

Material.—The basis of the material employed is wood-pulp, made preferably from the crushed fibre of the poplar tree. This is rolled into sheets in such wise that the fibres intertwine in every direction, and loosely, thus giving an increased ductility to the product. These sheets are further strengthened by having a fabric introduced between the layers of the pulp, or by interweaving with the short, crushed wood-fibres, a long jute or other tough fibre.

These sheets are made of several thicknesses; for convenience I shall designate them by number—each figure representing one millimetre. Thus, Sheet 1 has a thickness of one millimetre, Sheet 2, of two millimetres, and so on.

The characteristics of this material are stiffness or rigidity when dry, and plasticity with toughness when moist. Its rigidity can be increased *ad libitum* by the use of a silicate solution as a moistener.

Moisteners.—Water, or a stiffening solution, can be used to moisten the material previous to molding. The advantage of water is its omnipresence. With its aid a serviceable splint can be made. Such a splint, however, is liable to be softened by the absorption of perspiration, or, on children, of urine; and for this reason it should be protected by a covering of oiled paper or silk, or mackintosh, or best of all, by a coat of varnish.

A solution of potassium silicate has several qualities which render it the best of the stiffening solutions experimented with. (Sodium silicate and a mixture of potassium and sodium silicates have nearly the same qualities.)

Any desired degree of rigidity up to brittleness can be given the splint by using a silicate solution as a moistener—the stronger the solution, the more rigid the splint.

A splint rendered rigid in this wise is not affected by perspiration, nor indeed by momentary contact with fluids, as in washing. Another quality, of exceptional advantages in cases of compound fractures, is that this solution has strong antiseptic properties.

The manner of moistening the blank deserves mention. It is most satisfactorily done by applying by means of a flat paste-brush, the fluid used, on both sides, alternately, of the splint-bank, and repeating until the proper amount of the fluid is absorbed.

Practice enables us to judge the precise amount of moisture suited for our purpose.

Having thus treated of the materials used in this method of splinting, I shall briefly consider their application to the human body, under the headings of

(1) Head splints.
(2) Trunk splints.
(3) Upper limb splints.
(4) Lower limb splints.

This simplicity of classification will be necessarily violated in specific cases where compound splints, embracing parts of different systems are constructed.

There follows a systematic description of splints and apparatus, mostly original, for the various parts of the body, and the author's technique for the same.

——o——

No. 59

RECONSTRUCTIVE SURGERY.

By Thomas Maghee, A. M., M. D.,
Rawlins, Wyoming, U. S.

Patient, Englishman, George W——, æt. fifty-three, sheepherder, attempt at suicide. Gunshot wound of face and neck, extending from pomum Adami to nasal bones, with almost entire destruction of lower maxilla, alveolar portion of upper maxilla, chin, mouth and nose.

Patient transported thirty miles in farm wagon.

Thirty-nine operations in five months.

Result, complete reproduction of lower maxilla.

Restoration of injured portion of upper maxilla.

Construction of new chin, mouth and nose with natural appearance of tissues, also new mustache and beard.

——o——

No. 60

URETHRAL MALE POLYPUS.

By R. Menoral, M. D.,
Havana, Cuba.

The case which I have the honor to bring before you is extremely rare. It is well-known that the male urethra is rarely affected by morbid growth, and only after the use of perfected apparatus for exploring the canal, its existence is admitted. The following case which we have seen is a good example, obscure in its cause, but I think effectively treated.

Mr. W. M., is a man of twenty-eight years old, bachelor, book agent. I saw him at my office, on the fifth of June, 1892. No history could be obtained of gleet or syphilis. The patient said that he had observed that the morbid growths of the meatus had been developing for about three months at left side, growing slow. He told me that no careful attempt had been made to remedy this swelling, because he has no dsciomfort in making water; no pain, no smarting, and only at times a little blood is lost at end of micturition, the blood being moldered into long worm-like clots.

When I saw him, I observed at left side of the meatis two little growths, olive-shaped, flattened, pale, smooth. By expanding the sides of the urethra with the fingers, we have not found another tumor, but exploring the rest of the canal by means of the Grüenfeld endoscope, the existence of four more polypi, located immediately before the bulbous portion, is revealed, the canal is enlarged. One of the tumors is pediculated,

the mucous membrane is soft, red around the polypus. Upon examination by the urethral endoscope is found a puffed appearance one inch in extent, in a state of granular degeneration; the pediculated polypus was situated at the right side; the rest of the canal had a normal appearance.

On the same day of the consultation, I performed the operation. A weak boracic solution was injected followed by another cocaine solution at one per cent. By means of a small Sim's curette, I scraped the supposed site of the growths, turning the instrument and extracting the four polypi. The removal of these tumors and the scraping of the mucous membrane are not attended with any serious hemorrhage.

With a small curved eye scissors I excised the tumors of the meatus, applying after the excision sutures with fine silk thread.

Injections of permanganate of potash are recommended. This topical treatment was repeated four times a day.

Sutures are removed at seventh day, the wound of the meatus healed per primam.

At eighteenth day endoscopic examination of the canal shows its normal appearance.

On microscopical examination a fine interlacing thread of connective tissue and blood vessels, covered with an attenuated layer of urethral epithelium, were seen.

—o—

No. 61.

SIMPLICITY IN SURGERY.

By Robert W. Johnson, M. D., Principal and Practitioner of Surgery,
Baltimore Medical College.

I. Introduction.

Repetition of axioms not always useless.

Simplicity, the termini of a science. Evolution, the process of elimination. Theoretically desirable. Practically often neglected. Immortality of a discovery often proportionate to its simplicity.

II. Nature, complex as she is, one factor in all treatment; hence simplicity here refers to man's assistance.

III. Reasons for aiming at simplicity:

(1) Greater applicability in place and time.

(2) More easily comprehended and retained in mediocre minds.

(3) Fewer avenues for error.

IV. Comparison of complex and simple methods of treating.

(1) Inflammation; (2) hemorrhage; (3) drainage; (4) sutures and ligatures; (5) antiseptics; (6) fractures; (7) herniæ, etc.

V. Simplicity in prescribing drugs. No shot-gun prescriptions.

VI. Value of simplicity in nomenclature, and with laity, jury, etc.

VII. Conclusion.

No. 62.

A REPORT OF FOUR CASES OF BRAIN SURGERY.

By Andrew J. McCosh, M. D.

Attending Surgeon Presbyterian Hospital, New York, Professor of Surgery, New York Polyclinic.

The surgical treatment of epilepsy has been unsatisfactory. Very few cases have been permanently cured as the result of operation.

Report of four cases operated on by the author, no general conclusions can be drawn from these cases, but each one has points of special interest.

Case I. Age seventeen; extra dural hemorrhage. Convulsions on tenth day. Trephining. Removal of clot. Recovery.

Case II. Aged six. Extra-dural hemorrhage. Paralysis and convulsions. Trephining on eighth day. Removal of clot. Recovery.

Case III. General epileptiform convulsions, stupor and delirium. Trephining in right occipital region. Œdema of brain. Aspiration and drainage (for two days) of right lateral ventricle. Recovery. No convulsions since operation and patient perfectly well (five months).

Case IV. Age seven. General convulsions and partial paralysis of right arm and leg. Trephining over motor area of left side. Dura mater opened. Thin membrane, old organized blood-clot found over motor area. Removal. Recovery. Paralysis improving, no change in convulsions (four months).

——o——

No. 63. "Sondas y Bujras Gercas del Dr. Castano," by Dr. Alberto Castano, Buenos Aires, Argentine Republic.

[Abstract and Specimens not furnished.]

——o——

No. 64. Paper by Ignacio Placencia, M. D., Havana, Cuba.

[Title and Abstract not furnished.]

——o——

No. 65. Paper by Ignacio Placencia, M. D., Havana, Cuba.

[Title and Abstract not furnished.]

——o——

No. 66. "Tratamiento quirurgico de la fiebre amarila," by Segundo B. Mateo, M. D., Havana, Cuba.

[Abstract not furnished.]

——o——

No. 67. "In what Class of Cases is Drainage Required?" by H. O. Marcy, M. D., Boston, Mass. [Abstract not furnished.]

No. 68. "Causation, Pathology and Treatment of Carbuncle," by DAVID W. GRAHAM, M. D. Chicago, Ill. [Abstract not furnished.]

—o—

No. 69. Paper by Dr. MARTIN HERRERA, Caracas, Venezuela.
[Neither Title nor Abstract furnished.]

—o—

No. 70. Paper by Dr. MIGUEL A. LECO, Caracas, Venezuela.
[Neither Title nor Abstract furnished.]

No. 71.

—o—

DEMONSTRATION OF IMPROVED LONG TRACTION HIP-SPLINT WITH PROPER METHOD OF APPLYING ADHESIVE PLASTER FOR COUNTER EXTENSION.

By HENRY LING TAYLOR, M. D.,
New York City.

The splint consists in a hollow shank, firmly attached at its upper end to a side plate, from which strong curved steel horns spring to carry the perineal strap.

In the hollow shank plays a notched bar, which is worked by a key; this bar is bent under the foot at a right angle to give attachment to a strap which is buckled to adhesive plasters ending just above the malleoli. The plasters consist in two strips of diachylon plaster, each ending in a buckle; they are one and one-half inches wide and long enough to reach from just below the level of the groin to two inches above the malleoli, on the outer and inner aspects of the limb, respectively. To each plaster are sewed two tails of three quarters of an inch rubber plaster, above the knee and at the lower end. With both long strips in position, the narrow strips are to be evenly wound in a spiral direction upward around the limb, beginning with the upper pair. They should be held in place by a bandage or laced legging. Plasters applied in this manner pull from the thigh, so that the knee is protected, and give a firm basis for continued traction. The improvement in the apparatus described, over the original Taylor hip-splint, consists mainly in the substitution of the strong curved steel horns of peculiar shape, for the horizontal hip-band formerly used. The change was made on account of the greater comfort and convenience of the new arrangement, but chiefly to give greater rigidity to the apparatus.

—o—

No. 72. IMPROVED APPARATUS FOR POTT'S DISEASE.

By HENRY LING TAYLOR, M. D.,
New York.

The apparatus devised by Dr. C. Fayette Taylor, over thirty years ago, for the treatment of Pott's disease, and figured and described (often incorrectly) in surgical works, has in the last twenty years undergone considerable modification and improvement in the way of definiteness and precision of action, though the principle of antero-posterior leverage remains unchanged.

The apparatus (*Figs. 3* and *4*) in the form shown has been in use for eighteen years or more. It differs from the apparatus shown to the New York State Medical Society in 1863 in the following points: (1) The parallel vertical bars have been lengthened, and end in hooked pieces passing well over the shoulders near the neck. (2) The hinges differ somewhat in construction (see detail *Fig. 4*) and are screwed to the bars, being retained solely for the purpose of facilitating the modification of the apparatus corresponding to the varying indications of the case. (3) The horizontal hip-band is discarded, and replaced by a rigid steel bar or vertical hip-band having the shape of an inverted U; to the upper part of this band the lower ends of the vertical bars are firmly attached. The ends of the ∩-shaped band are fitted into the post-trochanteric sulcus on either side, and together with the hooked pieces at the root of the neck fix the apparatus laterally, besides assisting in antero-posterior and vertical fixation. The lower ends, being points of contact with the skin, are protected by hard-rubber plates. (4) Hard-rubber pads are used instead of the soft pads formerly employed, to transmit the leverage of the apparatus to the region of the spine which it is desired to protect. (5) Instead of the straps encircling the arm formerly used to get a fixed point for counter force in front, a "chest-piece" is employed, consisting of two ear-shaped or triangular hard-rubber pads, fitted under the clavicles and resting on the pectoral muscles, and joined by a stiff steel bar, curved forward to escape the chest, and so contrived that the distance between the plates may be increased or diminished at will. The chest-piece being in position, is buckled to straps coming from the ends of the shoulder hooks above, and below it is strapped to a buckle at the angle of the ∩-hip-band on either side, thus leaving the arm free and the axilla untouched. (See upper part of *Fig. 4.*) (6) The apron which holds the whole apparatus forward reaches to the posterior border of the axilla on either side, and from the trochanter to the arm laterally, and is secured by straps and buckles to the apparatus. (7) Perineal straps pass from the lower border of the apron in front, under the thighs to the ends of the vertical hip-band.

It is to be understood that appropriate modifications of the form of the apparatus are made to correspond with the indications presented by disease in the different regions of the spine, and by the character and amount of the deformity. Most cases above the eighth dorsal, will require, in addition, Dr. Taylor's circular pivoted head-support or chin-rest, which is easily fitted to this apparatus.

—o—

No. 73

APPARATUS FOR THE CORRECTION OF TALIPES EQUINO-VARUS AND FOR THE RETENTION OF THE CORRECTED FOOT.

By Henry Ling Taylor, M. D.,
New York.

This apparatus, devised by Dr. C. Fayette Taylor, is used for the gradual reduction of the deformity by continuous leverage applied to the inner side of the foot and leg. As the deformity yields, the leverage is increased by bending the shank of the instrument

The splint, always acting from the inner side and never attached to the shoe, is used and modified to meet the requirements of particular cases, and has been substantially as shown for eighteen years. It consists, in its commonest form (*Figs.* 1, 2, and 4), in a steel shank with guarded leg and ankle-bands pivoted to a foot-piece of thin steel. The foot-piece has a sole-plate, and a side-plate fitted to the inside of the foot; there is a screw stop at the ankle-joint to flex the ankle, and there are straps across the instep which are guarded by a small steel bar. The shank is not usually pivoted directly to the foot-plate but to a steel **H**-piece which makes an offset from the ankle. The shank of this instrument is easily bent by the hand or by wrenches according to the requirements of the case.

About 1874 a three-tailed adhesive plaster was applied to the leg (*Fig. 3*), and a piece of webbing attached to the plaster was buckled to the heel of the apparatus (*Fig. 4*). This kept the heel from leaving the sole-plate when force was applied, and greatly increased precision of action.

The essential points in the method are:

(1) The preservation of the heel cord as an aid in unfolding the foot.

(2) The gradual reduction of the varus deformity first, afterward of the equinus.

(3) Exact prehension of the foot by means of an apparatus not attached to the shoe, and by adhesive plaster applied to the leg.

(4) The application of leverage to the inner side of the foot and leg.

(5) Thorough mechanical after-treatment.

—o—

No. 74. "Practical Orthopedics," by Dr. Noble Smith, London, England.
[Abstract not furnished.]

—o—

No. 75.

OBSERVATIONS ON THE ROTARY-LATERAL CURVATURE OF THE SPINE, WITH SPECIAL REFERENCE TO ETIOLOGY AND TREATMENT.

By Jacob Teschner, M.D.,
New York City.

General results of treatment.

Time of life when curvatures occur.

Sex as a factor.

Pathological and anatomical causes.

Factors in the etiology of the disease, which are regarded by the author of special importance, viz:

(1) Hereditary tendency.

(2) General temperament, and the condition of the mind and nervous systems.

(3) Lack of development of the muscular system and general physical condition.

(4) Habitual faulty position with super-imposed weight, especially considering the school habits of children.

Treatment of classes of curvatures, viz:

(1) Habitual scolioses which can be obliterated by the voluntary muscular efforts of the patients.

(2) Scolioses which are not affected by muscular efforts, but which can be reduced or obliterated by suspension of the patients.

(3) Scoliosis which are not affected by muscular efforts or by suspension, the deformities being fixed.

———o———

No. 76.

RECUMBENCY IN THE TREATMENT OF POTT'S DISEASE.

By John C. Schapps, M. D.,
Brooklyn, N. Y.

It is not alone the collapse of a cavity produced by disintegration which is the local determining condition of the deformity of Pott's disease. The softened bone which surrounds for some distance and merges into the seat of actual destruction is squeezed out by longitudinal pressure, bent out by antero-posterior leverage and pushed out by direct backward pressure. To directly antagonize these deforming forces it is necessary to have a passive spine. Portative apparatus are limited in their efficiency by reason of the distance and heterogeneous character and mobility of the parts which intervene between their points of application and the lesion sought to be controlled, and are usually applied with a view to maintaining the activity of the spine, as a support and a base for muscular exertion. Recumbency means more than simply putting a patient to bed. It implies the retention of the whole spine in the best possible position so that the separate parts remain unchanged or subject to such changes only as the surgeon may make. When the patient is horizontal, the force of gravity which had acted when upright as a deforming agent can be converted into a reforming force. Direct backward pressure can be accurately antagonized. Muscular action and consequent interosseous pressure, now greatly reduced by the general condition of rest, can be overcome by fixation and by less traction than would be required to raise the weight of what were superincumbent parts. The spine thus relieved of the performance of all its active functions, and saved from all traumatisms except that of respiration, is placed in the best possible condition for repair. And, what is of great importance, fever and the drain of muscular spasm, pain and perverted nutrition are met by a state of systemic rest. Clinical experience has demonstrated the truth of these theoretical considerations. When the proper conditions are maintained, patients are usually relieved of pain, sleep and eat well, and soon lose the drawn, old, tired expression so familiar upon the faces of those suffering from prolonged muscular spasm. The improvement in general health which they commonly make is, to those who have been burdened by the traditional fear of confinement, surprising. I believe that by systematic recumbency the course of the disease is materially shortened, much destruction is avoided and

much deformity prevented. Another merit of this therapeutic measure is that its employment does not demand the mechanical skill and experience necessary to the successful construction and use of a portative apparatus. When a spinal brace cannot be readily obtained, recumbency may, if the mechanical conditions are carefully studied, be safely resorted to, until other arrangements can be made. Patients may be removed long distances with comfort and safety upon a frame.

The indications for recumbency are: (1.) As a routine measure as soon as a diagnosis of spondylitis has been made or even when it is probable. (2.) In cases of patients wearing braces, persistent pressure sores, progressive deformity, psoas contraction, acute or increasing abscess, loss of power, pain, night-cries, grunting respiration, inclination to lean on chairs, etc., or any other suggestion by face, attitude or gait that the proper degree of support has not been secured. For the fulfillment of all the indications a wheeled couch is recommended, consisting of a canvas support laced to an iron frame which is adjustable at any convenient height or incline. The canvas is provided with the necessary aperture, closed by a flap. Straps, pads and weights are added for support, fixation and traction. Adjustable pressure to antagonize the kyphotic projection is produced by means of straps. The patient need rarely be moved for any purpose whatever. When not in use the apparatus can be folded up.

When acute symptoms have been absent for several months, the patient may gradually and tentatively be allowed greater liberty under the protection of a brace carefully adapted to the needs of the case.

—o—

No. 77. "Causes Contributing to Failure in the Treatment of Hip Joint Disease," by A. M. Phelps, M. D., New York, N. Y.

[Abstract not furnished.]

—o—

No. 78. "Some Thomas' Splints with Demonstrations of Principles," by John Ridlon, M. D., Chicago, Ill.

[Demonstration not furnished.]

—o—

No. 79. "Orthopedic Work done at the Vanderbilt Clinic of New York, from January, 1889, to June, 1893," by John Ridlon, M. D., Chicago, Ill.

[Abstract not furnished.]

—o—

No. 80.

A CASE OF ACUTE ARTHRITIS OF THE HIP OF INFANTS, WITH SOME REMARKS ON THE ETIOLOGY OF THE AFFECTION.

By Augustus Thorndike, M. D.,
Boston, Mass.

W. C., a boy aged seventeen months, had been ill for three days, although for ten days previous he had occasional cramps in the stomach. He was much emaciated, with pinched

and anxious expression of face, and was in great pain, which was made worse by any movement. The left thigh was semiflexed, swollen to twice its natural size, fluctuating and very tender. Swelling involved the entire thigh to iliac crest behind, and also the lower half of the abdomen. Temperature 104.6 (rectal). Pulse 160. Operation at the West End Infant Hospital on heated table under light etherization; the abscess was opened, irrigated with corrosive sublimate solution, and washed out with boiled water, drainage tubes inserted and sterilized gauze dressings, and a Cabot wire frame applied. The hip was dislocated on the dorsum, the acetabulum was very shallow and probably perforated; hip replaced, came out, replaced again in three days under ether, but would not remain in place. Good recovery otherwise; the frequency of dislocation persisting in cases which recover explained.

Etiologically the affection is an acute septic affection of great virulence, characterized by rapid and extensive suppuration and destruction of the bone and soft parts, and by general sepsis; it occurs chiefly in small babies. Trauma has but little to do with its production. Syphilis may cause it and so may tuberculosis, but pathological data are wanting to prove this, and it is usually regarded as a simple acute septic inflammation of the upper epiphysis of the femur. Bacteriological examinations show the pyogenic organisms found in the pus to be staphylococci, especially *s. aureus* and occasionally, as in this case, streptococci are also present.

———o———

No. 81.

THE THERAPEUTIC TREATMENT OF INFANTILE PARALYSIS.

By L. A. Weigel, M. D.,
Rochester, N. Y.

The prevention of deformity in the early stages.

Differentiation between malpositions due to muscular fixation and contraction, by the use of anaesthetics.

The use of anaesthetics in the treatment of paralytic deformities.

Description of a method for correcting malpositions of the hip, with report of a case illustrating the same.

Operative treatment of paralytic deformities.

———o———

No. 82. "Gymnastic Apparatus for Scoliosis," by L. A. Weigel, M. D., Rochester, N. Y.
[Abstract not furnished.]

———o———

No. 83. "Practical Points in the Treatment of Hip Disease," by A. B. Judson, M. D., New York, N. Y.
[Abstract not furnished.]

No. 84. "The Technique of the Plaster Jacket," by REGINALD H. SAYRE, M. D., New York, N. Y.

[Demonstration not furnished.]

—o—

No. 85. "Club Hand," by REGINALD H. SAYRE, M. D., New York, N. Y.

[Abstract not furnished.]

—o—

No. 86. "Gastrostomy for Relief of Oesophageal Stricture," by ERNEST LAPLACE, M. D., Philadelphia, Pa.

[Abstract not furnished.]

—o—

No. 92.

HYPERTROPHY OF THE PROSTATE.

BY G. FRANK LYDSTON, M. D.,
Chicago, Ill.

Among other points made by the author in this paper were the following: It is claimed by writers upon the subject that the prostate is absent in children, Mansell Moullin basing his arguments anent the function of the prostate largely upon this supposed fact. Dr. Lydston himself, in a recent paper, presented similar arguments regarding the function of the prostate. He now, however, renounces his views in this direction and asserts that a well-developed prostate body is found in children. He presented two drawings of the bladder and prostate in a new-born child, and in a child of four years of age in support of his assertion.

Regarding the function of the prostate, the author has modified his views somewhat, he having hitherto believed that the prostate as regards the function of both its glandular and muscular structure was distinctively a sexual organ. From post-mortem and clinical studies, however, he concludes that it has both a sexual and urinary function, perturbation of either of which may lead to disease. Once pathological conditions have been excited, the perturbation of both sexual and urinary function is likely to follow. As an illustration of the importance of the prostate from the sphincteric standpoint, is mentioned the fact that a thorough splitting of the membranous urethra back of the apex of the prostate is not followed by incontinence of urine, providing the prostatic urethra proper and the prostato-vesical sphincter are not completely paralyzed by over-dilatation. This is exemplified in many cases of perineal section for organic stricture. The author further claims that residual urine *per se*, is not the cause of the early symptoms of prostatic disease. It has an important bearing, to be sure, upon the symptomatology of this affection, but it is, when taken alone, a minor factor in the pathological and symptomatic *tout ensemble*. Residual urine, the author claims, is by no means infrequent, in patients who are not supposed to be the subjects of prostatic disease. He does not believe in the majority of individuals the bladder is ever thoroughly emptied in the physiological performance of

micturition. This defect in evacuation increases as the subject grows older and the elasticity of the bladder walls becomes impaired. When the elasticity is pathologically impaired, a proportionate increase in the quantity of residual urine results. A condition of extreme irritability of the prostatic urethra associated with a diminution and rigidity of its lumen has more to do with the early symptoms of prostatic disease than has residual urine. Once a cystitis has occurred, then the existence of residual urine becomes of relatively great importance.

Dr. Lydston does not believe that the beneficial action of the catheter in *prostatiques* is due to evacuation of the residual urine, nor does he believe that catheterization alone will evacuate the residual urine completely in these patients. He believes that the rest secured to the prostate and bladder by the systematic introduction of the catheter, associated with the blunting of hyperasthesia by the pressure of the catheter, has more to do with the relief of the symptoms than the simple evacuation of residual urine. Once the residual urine has become pathological, then its removal is urgently necessary, but this cannot be evacuated by the catheter alone, irrigation being necessary for this purpose.

Regarding the etiology of prostatic disease, Dr. Lydston claims that senility *per se* is *not* a logical explanation of prostatic hypertrophy. He has found by *post mortem* examinations, incipient posterior median lobes in subjects under forty years of age with perfectly healthy bladders. He thinks the disease is laid down before middle life. Excesses of various kinds, particularly in the way of sexual indulgence, masturbation, etc., being responsible for it in a large proportion of cases, collateral causes entering into play however. He collectively embraces the causes of prostatic hypertrophy as beginning in early life under the term *prostatic overstrain*. He believes that in patients presenting the first symptoms of the disease late in life, the changes in the prostate had their point of departure many years before. Dr. Lydston divides the various pathological conditions embraced under the omnibus term hypertrophy of the prostate essentially as follows: (1) Hyperplasia of the periprostatic glandular and interstitial tissues. (2) Hyperplasia of the prostatic muscular tissue proper, with or without a corresponding periprostatic and glandular hyperplasia. (3) Circumscribed enlargement of the lateral or posterior median portion, singly or combined. This may be associated or not with a bar at the neck of the bladder. (4) A bar at the neck of the bladder. (5) Fibro-myomatous neoplasms.

Lastly, the author calls attention to the fact that drainage of the bladder produces its beneficial effects by promoting rest of the prostate and vesical neck and surrounding tissues. He claims, if performed at an early period, this operation will alone very frequently restore the normal function of micturition by inducing resolution in hyperplastic tissue.

SECTION ON MILITARY MEDICINE AND SURGERY.

HONORARY PRESIDENTS:

Brig. Genl. Chas. Sutherland, M. D., Surgeon General U. S. Army; Surgeon General J. Mills Browne, M. D., Chief of Bureau of Medicine and Surgery, U. S. Navy; William A. Hammond, M. D., Surgeon General U. S. Army, (Retired); Robert Murray, M. D., Surgeon General U. S. Army, (Retired); John Moore, M. D., Surgeon General U. S. Army, (Retired); Col. Fernando López, M. D., Mexican Army; Col. Tomas Casas, Medical Sub-inspector of the First class, Spanish Army, Havana; Robert Grieve, M. D., Surgeon General, Georgetown, B. G.; Joseph D. Bryant, M. D., Surgeon General, State of New York; Nicholas Senn, Surgeon General, Wisconsin National Guard; Walter Wyman, M. D., Surgeon General U. S. Marine Hospital Service; Philip S. Wales, M. D., Medical Director U. S. Navy; Thomas A. McParlin, M. D., Brev't Brig. Gen'l U. S. A., (Retired); Edw. P. Vollum, M. D., Colonel and Chief Medical Purveyor, U. S. Army, (Retired); Jos. R. Smith, M. D., Colonel and Ass't Surgeon General U. S. A., Medical Director Dep't of Col'd U. S. Army; Albert L. Gihon, M. D., Medical Director U. S. Navy; John H. Brinton, M. D., Philadephia, Ex-Surgeon U. S. Volunteers; Hunter McGuire, M. D., Richmond, Va., Ex-Surgeon Volunteers, C. S. A.; Robert Weir, M. D., New York, formerly Ass't Surgeon U. S. A.; P. S. Conner, M. D., Cincinnati, formerly Ass't Surgeon U. S. A.; D. Bergin, M. D., Surgeon General Canadian Militia; Dr. Frederick W. Strange, Surgeon Canadian Regiment of Infantry.

EXECUTIVE PRESIDENT:

Lieut. Col. Geo. M. Sternberg, Surgeon General U. S. Army, War Dep't, Army Bldg., New York City.

SECRETARIES:

John Van R. Hoff, M. D., Sur. U. S. A. (Eng.-Speaking), Governor's Island, N. Y.
Dr. D. M. Guitéras, U. S. N. (Span.-Speaking), 133 E. 117th St., N. Y.

Dr. Mallo [Piedad 1259]	Buenos Aires,	Argentine Republic.
Dr. Hernandez,	La Paz,	Bolivia.
Dr. Carlos Frederico S. X. Azevedo,	Rio de Janeiro,	U. S. of Brazil.
Dr. Abraham Aparicio [Carrera 8]	Bogota,	Rep. of Colombia.
Dr. Juan J. Ulloa,	San Jose,	Costa Rica.
Dr. Eduardo Semprun [San Jose 10]	Havana,	Cuba.
Dr. D. E. Gueside	Point à Pitre	Guadeloupe, F. W. I.
Dr. Juan J. Ortega,	Guatemala City,	Guatemala.
Dr. A. Comean,	Port au Prince,	Haiti.
Dr. G. P. Andrews,	Honolulu,	Hawaii.
Dr. José Gayón [Hospital Militar]	City of Mexico,	Mexico.
Dr. J. Martinez,	Granada,	Nicaragua.
Dr. Gabriel Honoré [Gaboto 151]	Montevideo,	Uruguay.
Dr. N. Guardia,	Caracas,	Venezuela.

SECTION OF MILITARY MEDICINE AND SURGERY.

No. 101. "Laparotomy in Gun-shot Wounds of the Abdomen," by P. S. Conner, M. D., Cincinnati, Ohio.

[Abstract not furnished.]

—o—

No. 105. "Paper by Wm. A. Hammond, M. D., Washington, D. C.

[Neither Title nor Abstract furnished.]

—o—

No. 106.

ARE PROJECTILES FROM PORTABLE HAND WEAPONS STERILIZED BY THE ACT OF FIRING?

CAN A SEPTIC BULLET INFECT A GUN-SHOT WOUND?

By Louis A. LaGarde,
U. S. A. Hospital, Chicago.
[From the Laboratory of the Johns Hopkins University and Hospital.]

As a preliminary to the work of noting the effects of firing bullets that had been previously contaminated it was considered proper to ascertain the condition, bacteriologically speaking, of bullets in their original packages. After a number of observations it was found that fifty-three per cent of all cartridges in their original packages were absolutely free from germs. This is to be ascribed to the cleanly methods, which are necessary in their manufacture.

The literature of gun-shot wounds shows that the majority of surgeons of the past and present times believe that the act of firing destroys any infection that might have been accidentally or otherwise placed upon the projectile.

In order to ascertain the facts in the matter I fired projectiles after they had been sterilized by heat from revolvers that had been similarly sterilized. The projectiles were recovered from sterilized cotton and dropped into gelatine tubes. The latter revealed no growth.

Projectiles covered with dust were then fired from sterilized revolvers into sterilized cotton. As each projectile was recovered it was dropped into a gelatine tube. Colonies appeared in every instance.

In a series of experiments with the .22 and .38 calibre revolvers, the .45 calibre Springfield rifle, as well as the .30 calibre Experimental Springfield rifle, whose projectile is made of a core of lead enveloped in a mantle of German silver, and whose ballistic qualities correspond to the Maemlicher, Improved Mauser, Lebel, etc., the projectiles were in all instances infected with the germs of anthrax and fired into sterilized materials and into animals.

The tables of results show that anthrax bacilli or spores are seldom, if ever, destroyed by the act of firing.

Bullets infected with the streptococcus of erysipelas, with some of the same culture of tetanus mentioned below, and with the bacillus pyogenes soli of Bolton, were fired through the ears of rabbits with a .45 calibre Colt's revolver. The erysipelas coccus was communicated to one animal, and the bacillus pyogenes soli was recovered from the wound of another; tetanus was not communicated.

A bullet infected with a culture of the bacilli of tetanus was fired into a horse with the Modified Springfield rifle with negative results; rabbits inoculated with some of the same culture died promptly. At the suggestion of Professor Meade Bolton, of the Johns Hopkins Hospital, a bag of tetanus earth was placed against the hip of another horse and the projectile of the .30 calibre Experimental Springfield rifle was fired through the earth into the fleshy part of the ham without result.

The following conclusions may be formulated from the foregoing:

(1) The majority of cartridges in original packages are sterile and free from septic germs.

(2) The sterile condition of cartridges is due to the thorough disinfection and absolute cleanliness observed in the process of manufacture.

(3) The majority of gun-shot wounds are aseptic because the vast majority of the projectiles inflicting them are either sterile or free from septic germs.

(4) Anthrax spores or bacilli when applied to the projectile of a portable hand weapon are seldom, if ever, entirely destroyed by the act of firing.

(5) When a gun-shot wound is inflicted upon a susceptible animal by a projectile infected with anthrax bacilli the animal becomes infected with anthrax and dies in the vast majority of instances from said infection.

(6) The streptococcus of erysipelas and the bacillus pyogenes soli when placed upon the projectile of the .45 calibre Colt's revolver, are not always at least destroyed by the act of firing, and they are liable to cause infection.

(7) Projectiles from portable hand weapons are not sterilized by the act of firing.

(8) A septic bullet can infect a gun-shot wound.

U. S. Army Hospital, Jackson Park, Chicago, Ill.
April 20, 1893.

—o—

No. 107. "The Point of Election in Amputations Below the Knee with Reference to the Serviceableness of Artificial Appliances," by Stephen Smith, M. D., New York.

[Abstract not furnished.]

—o—

No. 108.

THE AVOIDANCE OF INTESTINAL DISORDERS IN THE FIELD.

By Brevet Lt.-Col. Alfred A. Woodhull, Surgeon United States Army,
Hot Springs, Ark.

Intestinal diseases a large part of the morbidity in the field.

Due to: (1) Indigestion. From change of food; from altered cooking; from indiscretion in going beyond the ration. Instruction in field cooking required.

(2) Drinking water. From contained malarial cause; hardness; irritation by suspended mud. Modes of correction.

(3) Variations of temperature. Cold; value of waterproof blanket. Heat; action on abdominal vessels; importance of abdominal protection.

(4) Enteric fever. Its prevalence in all armies. Whatever the actual etiological condition necessary for the propagation of this disease, all non-paroxysmal fevers should be looked upon as possibly enteric. Scrupulous precautions against fouling camps by dejecta, and extreme care of sinks are necessary to prevent the introduction and spread of intestinal diseases.

—o—

No. 109.

PERSONAL EXPERIENCE OF NEARLY FOUR YEARS IN OBSERVING THE RESULTS OF GOOD AND BAD SANITATION IN THE CONFEDERATE STATES ARMY.

By Bedford Brown, M. D.,

Alexandria, Va. President of the Southern Surgical and Gynecological Association; Ex-President of the Medical Society of Virginia; Member of Medical Board of Virginia; Member of American Medical Association.

The design of this paper is to show the fluctuations in the health of the Confederate States Army, the results of the observance or non-observance of the laws of hygiene as witnessed by the author from time to time.

First example shows an army, Generals Lee and Floyd, of West Virginia, 1861, located on summit of Alleghanies, under most favorable circumstances for health, salubrious air, abundance of clear water, bracing climate, yet decimated by sickness caused by utter negligence of sanitation.

The second example is that of an army under the most unfavorable circumstances, located near Drury's Bluff, in the hot season of 1862, made a model of health and the camp a model of neatness by strict attention to the laws of hygiene.

Treats of the best methods found for the hygiene of armies and camps; treats of the importance of giving daily mental and physical employment to soldiers while stationary; shows the difference in the health of armies in active motion and when stationary.

Treats of the importance of proper disposition of human and animal excreta of camps.

Diseases of new recruits.—Homesickness in certain instances amounts to actual disease, mental and physical. Means used to control it.

Measles and its disastrous effects on the Confederate Army. How these evil effects were prevented.

Cerebro-spinal meningitis.—The epidemic as it appeared in the camps of instruction of North Carolina. Its origin and great fatality, and extinction by means of rigid quarantine and isolation. Its history established its contagious properties.

Hygiene of contagious diseases as gangrene, erysipelas, pyæmia, septicæmia, as adopted by the writer.

The effects of bad cooking on the health of the Confederate Army discussed.

The comparative capacity of educated, cultivated volunteers and that of the ignorant and illiterate to resist both the contraction and ravages of the diseases of army life.

The necessity of proper hygiene to the force, efficiency and vigor of an army.

Methods resorted to by the writer to protect the water supply of his command against pollution, and to preserve it in a state of purity.

The difficulties of protecting the water supply of stationary armies pure.

The surface drainage of camps is discussed.

The prevention of the accumulation of camp *débris* of all kinds, and the means resorted to for that purpose.

Cleanliness in all things was made an inflexible rule.

On the principle that moving armies are more healthy than stationary armies by reason of the protection of water from camp-surface drainage, and the non-accumulation of excreta and camp *débris* as a hygienic measure, the writer caused the command with which he was connected, while stationed in camp, to pursue a course in imitation as near as possible of an army in motion.

This was accomplished by having all privy sinks excavated at a point below the level of the water supply, and by establishing a regular system of changing the location of every tent every second day, sweeping thoroughly the old locations, and then burning the *débris* and exposing the entire surface, formerly covered by the tents to the action of solar heat and light, and the oxygen of the atmosphere. In this connection the chemical action of solar heat and light is discussed as hygienic agents.

The remarkable absorbing properties of the surface of the earth when shaded by tracts of either vegetable, animal, excrementitial substances, and all exhalations from the human body are also discussed, and the action of light and heat as chemical correctives.

———o———

No. 110.

THE CAUSES AND ORIGIN OF CONTINUED FEVERS IN NAVAL SERVICES.

By C. A. Siegfried, Surgeon U. S. Navy,
Newport, R. I.

In the study of the phenomena as a whole, and their influence on mortality rates, the varieties of typhoid and continued fevers furnish the type for an analytic study, and of a morbidity that impels our earnest attention; and a better appreciation of the causes, management and possible prevention and extinction of this type of disease is obviously desirable and attainable.

It is not the present purpose to consider relapsing fever, or particularly typhus fever—the class of plagues born directly of misery and famine—yet these in their etiology indicate a similarity of origin and conditions related to saprophytism, specialization of common forms of micro-organisms, and human invasion due to diminished power of resistance and a lowered immunity.

True typhoid and related forms of continued fever are essentially diseases of aggregated, well-conditioned humanity in all grades of society, civil and military, notwithstanding the arts and sciences of modern civilization; and no one factor of origin is fixed upon.

They much affect the crews of ships in the older harbors of the world, and the troops in garrisons, and at this time these fevers are the paramount cause of loss in all national forces.

Pyrexia (from increased metabolism, derangement of heat balance, or by the action of the chemical products and alkaloids on the heat centres—thermogenetic, thermotaxic and thermolytic) is not necessarily always present; the same of the sometimes present enteric lesion.

Typhus exanthematicus still lacks the thorough work long given to typhus abdominalis. Here is an overwhelming intoxication, rapid progress and rapid defervescence. The morbid lesions most noted are deposits of hæmatin, congestions of mucous membranes of the alimentary

tube and muscle degeneration. In typhoid the enteric lesion has given a name and typifies a large class of cases, but the hyperplasia of the lymph follicles of the intestine and parenchymatous change of the spleen signify sequence more than cause.

Since 1880 the Eberth bacillus has taken the chief part, but it is not *proved* that this organism produces typhoid fever in man or in animals, nor has it been shown to exist as such outside the human body unconnected with recent typhoid disease. It is clearly indicated by Roux, Rodet, Vaughan and by Babes that the Eberth-Geffky germ is a specialized form of a commonly present bacillus in the intestines. Klebs, Babes, Letzerich and others describe different forms as the bacillus typhosus. Rodet and Roux very positively assert that it is the altered and virulent form of bac. coli commune of Escherich. The constant association of the germ with typhoid is undoubted, and pure cultures have even been found in cases of typhoid at such unusual seats as the ribs. (Welsh.)

The work of Dr. Pasquale, of Italy, entitled "Studio Etiologico delle Malattie Febbrile piu comuni a Massaua," has cleared up the Italian Red Sea littoral regarding a class of low febrile disorders very common there. They are not of paludal or climatic origin, but partake of the typhic etiology; and he compares them to the fevers common to Crete, Malta and Gibraltar.

The admirable researches of Doctor G. H. Milnes, Doctor Gipps, R. N., and Doctors Bruce and Hughes, R. A., among Englishmen, has done much toward elucidating the Mediterranean fevers. The lesions may and may not resemble those of true enteric fever, but the spleen is usually found enlarged, and changes in the epithelial linings of the digestive tube are common. The germ which has been isolated and which produces a similar fever in monkeys, and which has in all respects fulfilled the postulates of Koch, is a minute coccus, ovoid, of rapid movement, stains easily, tends to chains, and is found in the blood and spleen. The fever may last for months, and the wave-like exacerbations, the thick white tongue, and long persisting muscular soreness are pathognomonic. The types observed are not exactly alike as noted in Gibraltar, Malta, Cyprus and the Red Sea coasts. There is, however, the same relation as in the varieties of typhoid in temperate zones. These fevers, in the basins of the Red Sea and the Mediterranean, cause enormous losses in men, time, and money. Without exception, and as in the case of typhic disease everywhere, all observers are agreed regarding the etiological relation of crowded environment, and organic putrescence—fecal pollution of soil and supplies.

The argument is, than continued fevers, excepting Murchison's classification, and including Mediterranean fevers, most tropical fevers and the "simple continued" fevers, are all of similar origin in the first place, differentiating finally, and becoming types only when the specialized microphytic elements have gained the characteristic virulent properties and power of transmission as such. The morbid lesions of typhoid, and the association of certain germs in the blood, intestines, and other tissues does not necessarily oppose this view in the light of recent knowledge of the natural history of micro-organisms, the varying chemical products under their constantly changing conditions of subject and environment.

It is impossible to find specific differences in the majority of cases of continued fevers, and particularly on occasions of beginning and of declining epidemics of typhus, typhoid and related forms, either in the mortality symptoms or morbid lesions. Once differentiated and specialized, by reason of predominance of the particulate class of germs involved, the types persist according to the conditions present. The lesions most noted are unusual fluidity of the blood and degenerations of muscle fibre. Eruptions and all other phenomena are inconstant.

Experience in naval service has impressed upon me that continued fevers originate spontaneously in foul crowded ships; that, with improving hygiene they are overcome and cease. On the land I have found cesspools under residences in the same relation with well-conditioned

human beings; and, in one instance, where for twenty two years these fevers—including some enteric—annually occurred, by diligent search and exhaustive analysis, the cause lay in long fecal-fouled subsoil and permeable basement floors and walls. Numberless instances are recorded, and it is becoming apparent that the "typhic" fevers are indubitably connected with insanitation and fouled supplies; that the microbic elements common to the body attain changed and virulent properties, with the formation of new bodies which, absorbed, influence the nerve centres controlling metabolism and the heat balance; that we see before us a slowly consuming phenomenon—a mixed infection, not a single micro-organism in the first place nor a single chemical product circulating in the blood stream, but several in association. The changes in blood, epithelium, spleen, and muscle, and the selective affinity of the poisons for the proteid elements of the nerve cell—the ataxia—are obvious.

In my humble estimation, the great and classic work of Murchison on continued fevers, and his belief regarding the origin of the "fevers of putrescence," mark the direction of their true etiology-putrescence the hot-bed of the class of saprophytic micro-organisms.

——o——

No. 111.

A CONTRIBUTION TO RECTAL SURGERY AND BLOODLESS OPERATION OF MEMBRANEOUS AND LAX TISSUES BY MEANS OF AN ELASTIC QUILLED, OR WELTED SUTURE.

By H. M. Bishop, M.D.,
Los Angeles, California.

For the removal of the larger hæmorrhoidal tumors, and of the complete or partial prolapse of the rectum, all past methods have failed in obtaining one or both of the desiderata of surgery, prevention of hæmorrhage and primary union; the ligature, the ecraseur, the clamp and cautery, and Whitehead's operation, are either liable to a waste of blood, primarily or secondarily, or leave a granulating wound whose prolonged healing may become affected with septicæma or other unpleasant complications.

After seeking for many years to obviate these disadvantages, and to devise some means of harmlessly controlling hæmorrhage while excising the tumors and redundant folds of the rectum, and likewise to hold in perfect and undisturbed coaptation the edges of the incisions, my endeavors have finally been satisfactorily rewarded.

It is now my custom after dilating the sphincter, to raise the hæmorrhoidal projection or prolapsed membrane with vulsellum, to gently clamp its base so as to parallel the approximated tissues and free them from plications; then, having left room between the clamp and adjacent healthy tissues, I apply on either side a sufficient length of rubber tubing five millimetres in diameter, having a central orifice of one millimetre; these are secured with catgut after the usual manner of the quilled suture, the clamp removed and the tissues divided close to the tubing. This makes a bloodless operation, plastic exudation soon unites the edges, the catgut softens in due time and permits the tubing to pass away, while the flexibility of the latter has adapted itself to its environment with the minimum of annoyance to the patient.

In cases of complete prolapsus, or where any considerable section of the rectum is to be removed, after properly bringing down the folds, the same plan can be followed, by uniting internal and external circles of the tubing, applied just above and below the section to be excised, the elastic pressure sufficiently occluding the divided vessels without interfering with

reparative processes, and leaving a smooth line of union. This, although resembling somewhat the modern enterorraphy, differs from it in the less rigidity and more suppleness of the supporting rings of union.

Other and more extended uses of this combined ligature and suture have suggested themselves. The cœleotomist might find it more eligible than the sectional tyings of the broad ligament now in vogue, with its puckerings of folds and crowding into condensed distorted masses. structures that are normally expanded, and whose severed edges would manifest less disposition to necrosis if kept unfolded and smoothly approximated while at the same time freed from the rigidity of the clamp. After a few days when the tubes had accomplished their object they could be slipped away from the softened catgut loops by a thread of silk left attached for that purpose, and drawn out through the vault of the vagina or other convenient locality.

Should it be necessary in any emergency to make use of more firmness than the simple tubing supplies, it can be furnished by passing a wire along the small aperture of the rubber tube.

For the closing of the abdominal incision and other long and deep wounds, it may prove to be more advantageous than the usual interrupted suture, for it provides a more uniform and steady joining of the severed parts, deep as well as superficial, which accommodates itself to the various necessary bodily movements without permitting any variation of the relation between the parts engaged in the process of reuniting, and which must consequently result in a firmer line of union.

——o——

No. 114. "Aprestos de Campamento de uso en Cuba por los Medicos Militares," by Dr. Felix Estrada y Catoyra, Havana.

[Abstract not furnished.]

——o——

No. 115. Hospital Corps Drill by Detachment, under the command of Major Van R. Hoff, Surgeon, U. S. A.

[Abstract not furnished.]

——o——

No. 116. Exhibition of a Field Hospital Complete with Equipment now in use in the U. S. Army.

[Abstract not furnished.]

——o——

No. 117. "First Aid to the Wounded and transportation of the Wounded from the Battlefield and Field Hospitals."

[Open Discussion.]

——o——

No. 118. Visit to the Army Medical Museum.

(*a*) Inspection of Collection.

(*b*) Inspection of Library of the Surgeon General's Office.

[Informal Session.]

No. 119. "Amputations Prothetically Considered," by GEO. E. MARKS, A. M., New York City.
[Abstract not furnished.]

—o—

No. 120. "The Laws of Growth of Bacteria Applied to Antiseptic Surgery," by ROBERT REYBURN, M. D., Washington.
[Abstract not furnished.]

—o—

No. 121. "The Wounds of the Mannlicher Rifle in the recent Civil War in Chili," by A. M. FERNANDEZ DE YBARA, A. B., M. D., New York City, N. Y.
[Abstract not furnished.]

SECTION ON ORTHOPÆDIC SURGERY.

HONORARY PRESIDENTS:

Dr. E. H. Bradford, Boston; Dr. E. Ventura Carvallo, Santiago, Chile; Dr. A. B. Judson, New York; Benj. Lee, Philadelphia; Dr. Julio Leon, Santo Domingo, Dominican Republic; Dr. James E. Moore, Minneapolis, Minn; Dr. Ernesto Odriozola, Lima, Peru; Dr. Roswell Park, Buffalo; Dr. A. M. Phelps, New York; Dr. John Ridlon, Chicago; Dr. Geo. W. Ryan, Cincinnati; Dr. Reginald H. Sayre, New York; Dr. A. J. Steele, St. Louis; Dr. Newton M. Shaffer, New York; Dr. Harry M. Sherman, San Francisco; Dr. Henry Ling Taylor, New York; Dr. W. R. Townsend, New York; Dr. DeForrest Willard, Philadelphia.

EXECUTIVE PRESIDENT:

Dr. Ap. Morgan Vance, 218 W. Chestnut St., Louisville, Ky.

SECRETARIES:

Dr. Robert W. Lovett (English-Speaking), Boston, Mass.	Dr. José R. de Armona (Spanish-Speaking), Key West, Fla.	
Dr. Alejandro Castro [Reconquista 342]	Buenos Aires	Argentine Republic.
Dr. Viscarra Heredia	La Paz	Bolivia.
Dr. Pinto Portella	Rio de Janeiro	U. S. of Brazil.
Dr. E. E. McKenie	Toronto	Canada.
Dr. Ignacio Remírez [San Nicolas 60]	Havana	Cuba.
Dr. Juan E. Manrique [Calle 16, núm. 57]	Bogota	Republic of Colombia.
Dr. Cárlos Durán	San Jose	Costa Rica.
Dr. Mariano Fernandez Padilla	Guatemala City	Guatemala.
Dr. Henry Goulden McGrew	Honolulu	Hawaii.
Dr. J. Midence	Leon	Nicaragua.
Dr. Diego Perez [Jefatura Politica]	Montevideo	Uruguay.
Dr. Pedro V. Vivas	Merida	Venezuela.

SECTION ON OBSTETRICS.

HONORARY PRESIDENTS:

Dr. William H. Baker, Boston, Mass.; Dr. Rafael Benavides, Lima, Peru; Dr. Lyman A. Berger, Kansas City, Mo.; Dr. James Peter Boyd, Albany, N. Y.; Dr. Pedro M. Cartaya, Matanzas, Cuba; Dr. Geo. J. Engelman, St. Louis, Mo.; Dr. Henry Gibbons, San Francisco, Cal.; Dr. Manuel Guiterrez, City of Mexico; Dr. Robert P. Harris, Philadelphia, Penn.; Dr. Barton Cooke Hirst, Philadelphia, Penn.; Dr. Edward W. Jenks, Detroit, Mich.; Dr. W. W. Jaggard, Chicago, Ill.; Dr. Charles Jewett, Brooklyn, N. Y.; Dr. Richmond Kelley, Portland, Oregon; Dr. A. F. A. King, Washington City, D. C.; Dr. William T. Lusk, New York, N. Y.; Dr. Matthew D. Mann, Buffalo, N. Y.; Dr. James W. McLane, New York, N. Y.; Dr. Adolfo Murillo, Santiago, Chile; Dr. Theophilus Parvin, Philadelphia, Pa.; Dr. Thad. A. Reamy, Cincinnati, O.; Dr. Sarah Hackett Stevenson, Chicago, Ill.; Dr. Wm. H. Taylor, Cincinnati, O.; Dr. Adam H. Wright, Toronto, Canada.

EXECUTIVE PRESIDENT:

Dr. Giles S. Mitchell, 277 West Eighth Street, Cincinnati, O.

SECRETARIES:

Dr. Hugh Hamilton (English-Speaking), Harrisburgh, Penn.	Dr. John J. Castellanos (Spanish-Speaking), 70 Orleans St., New Orleans, La.

Dr. J. B. Fernandez,	[San Martin 678]	Buenos Aires,	Argentine Republic.
Dr. Claudio Aliaga,		La Paz,	Bolivia.
Dr. Erico Coelho,		Rio de Janeiro,	U. S. of Brazil.
Dr. J. C. Cameron,		Montreal,	Canada.
Dr. Rafael Weiss,	[Industria 115,]	Havana,	Cuba.
Dr. Joaquin Maldonado,	[Calle 13, No. 64,]	Bogota,	Rep. of Colombia.
Dr. Tomás M. Calneck,		Cartago,	Costa Rica.
Dr. Mariano Fernandez Padilla,		Guatemala City,	Guatemala.
Dr. Sérémie,		Port au Prince,	Haiti.
Dr. G. P. Andrews,		Honolulu,	Hawaii.
Dr. Andres Lopez Martinez,		Tegucigalpa,	Honduras.
Dr. Fernando Zórraga,	[Arco de San Agustin 12,]	City of Mexico,	Mexico.
Dr. Velasquez,		Managua	Nicaragua.
Dr. Isabelino Bosch,	[18 de Julio 299,]	Montevideo,	Uruguay.
Dr. Angel Rivas Baldwin,		Caracas,	Venezuela.

SECTION ON OBSTETRICS.

No. 151. Address, by GILES S. MITCHELL, M. D., Executive President, Cincinnati, Ohio.

—o—

No. 152. "Maternity Hospitals and their Results," by JOSEPH PRICE, M. D., Philadelphia, Pa.
[Abstract not furnished.]

—o—

No. 153. "The Axis Traction Principle in Obstetrics," by JOSEPH HOFFMAN, M. D., Philadelphia, Pa.
[Abstract not furnished.]

—o—

No. 154. "The Care of the Pregnant Woman in the First Half of Utero-Gestation," by W. H. BAKER, M. D., Boston, Mass.
[Abstract not furnished.]

—o—

No. 155.

THE HEMORRHAGES OF PREGNANCY. THEIR MANAGEMENT.

By JOHN O. POLAK. M. D.,
Instructor in Obstetrics at the New York Post-Graduate Medical School, and the Long Island College Hospital, Brooklyn.

The hemorrhages occurring ante-partum are:
(1) Bleeding as a symptom of miscarriage.
(2) Placenta prævia.
(3) Accidental hemorrhage from the partial separation of a normally placed placenta and ectopic gestation. While post-partum bleeding from atonicity of the uterus and lacerations in the cervix, vagina and vulva.

Hemorrhage as a sign of miscarriage, when very slight, may be controlled by rest in bed, suppositories of morphia and atropia ℥i. doses fld. ext. of viburnum, or gr. iv. pill of solid extract.

The more severe cases with abortion inevitable, cervical softening, dilatation, and the ovum separated, everything being aseptic, the cervical and vaginal tampon is to be recommended, to empty the uterus and secure firm retraction.

Method—Empty bladder and rectum. Sims' position douche, Creolin two per cent. Through a Sims' speculum with anterior lip of cervix fixed carry strips of iodoform gauze into the cervical canal through the internal os, then pack anteriorly, posteriorly, laterally, and finally against the cervix, filling whole vagina with gauze.

Divulse if necessary by the rapid method.

Placenta Prævia. Clinically a pærvia is where the placenta has an attachment in the lower zone and the cervix, from which it is detached during canalization.

Before viability, diagnosis made, with the fœtus dead. Implantation central, or hemorrhage whether copious or moderate, empty the uterus.

After viability. Act with the occurrence of the first hemorrhage. It is not good obstetrics to allow her strength to become exhausted by repeated or continued bleeding, not to speak of the nervous strain she sustains.

Diagnosis made, hemorrhage occurring, cervix closed; tampon with iodoform gauze, at the end of eight to ten hours, when gauze is removed, douche with an antiseptic. The cervix in most cases will admit one or two fingers. With this amount of dilatation turn by the Braxton-Hicks method, and bring down a foot, which acts as a most efficient tampon. This method, in my opinion, is superior to either the method of Barnes, or the use of internal version.

Accidental hemorrhage from partial separation of a normally placed placenta.

Management—Rapid dilatation of cervix is indicated manually, or if the portio-vaginalis be effaced, the bloody method; then rupture the membranes, and deliver rapidly either by forceps or version. Remove the placenta immediately and tampon the uterus with iodoform gauze to control bleeding. Craniotomy may be resorted to if the fœtus be dead or non-viable.

I condemn ergot in these cases before delivery, causing spasmodic action and tendency to the formation of stricture at lower segment. (Case-History.)

ECTOPIC GESTATION.

Post-partum hemorrhage from uterine atonicity.

Cervical hemorrhages from lacerations.

Suture ligatures will control the bleeding from tears in the vagina and perineum.

Acute anœmia, lower head—auto-transfusion, subcutaneous injections.

—o—

No. 156. "A Study of Placenta Prævia, Especially the Causes of the Hemorrhages," by Sarah Hackett Stevenson, M. D.. Chicago, Ill.

[Neither Title nor Abstract furnished.]

No. 157.

THE FEASIBILITY OF IMMEDIATE REMOVAL OF THE PLACENTA IN OPERATIONS FOR ECTOPIC GESTATION.

By D. Tod Gilliam, M.D.,
Columbus, Ohio.

The distinguishing characteristic of operations for advanced ectopic gestation is the presence of the placenta and the necessity of dealing with the same.

I start out with the proposition *that the blood supply of such placentas is derived from one source, viz: the tubal vessels, and as these are centralized and usually accessible, hemostasis is at command.*

That such was the original source of blood supply is self-evident, because all extra-uterine pregnancies are at the outset tubal. As the ovum never starts life in extratubal structures, because they are incapable of those changes in response to its presence which renders life and development possible, such structures surely cannot be expected to receive and provide life-giving lodgment to an ovum suddenly thrust upon them after violent displacement. After implantation of the villi, such a change is inconceivable. The transplantation of a bunch of hair from one part of the scalp to another would be as rational as to expect these villi to adjust themselves to alien tissues. Death from inanition would be the inevitable result. That the placenta grows away from the tubal structures and forms new attachments, is not sustained by reason or analogy. It is much more reasonable to suppose that the structure that first gave bed and board to the ovum—the only structure capable of responding to its presence—should follow it up providing a matrix for the growing placenta, than that others under the dominance of a different set of vessels and nerves should do so. Such we find often in morbid growths, and every abdominal surgeon knows that the quickest and most effectual way to stop the hemorrhage of adhesions is to clamp the pedicle. Indeed, close observation has demonstrated that in extra-uterine pregnances the hemorrhage comes from the sac and not from the structures to which it is attached. As further evidence of this important fact, it has long been known that a ligature applied to the tube at the angle of the uterus will control the hemorrhage of an ectopic gestation. Why? Because in this situation the tubal circulation is controlled. The key to the situation lies in our ability to get at and shut off the circulation of the tube, whereby we also control the blood supply of the ovum and placenta.

—o—

No. 159.

THE STATUS OF OBSTETRICS IN GENERAL PRACTICE.

By Eliza H. Root,
Professor Hygiene and Medical Jurisprudence, Northwestern University Woman's Medical School, and Professor Clinical Obstetrics, at the Chicago Hospital for Women and Children.

Why is the physiological and perfectly natural function of child-bearing so frequently followed by health-ruining results?

The conditions which prompt the patient to seek advice of the gynecologist belong to one of two classes of causes or to both combined.

I. Traumatisms.

II. Inflammations. (*A*) Due largely to septic infection at or during the lying-in period.

The causes which produce these conditions may be traced to ignorant and careless practice. (*A*) Of the accoucheru, physician or midwife. (*B*) Of the patient herself, and (*C*) in the care of the lying-in patient.

(*A*) The physician assumes the responsibility of the lying-in chamber without sufficient clinical training and experience.

(*B*) Carelessness and ignorance on the part of the patient frequently puts the skill of the physician to a severe test. The physician will know nothing of a case of nephritis with albuminuria until called to a case of eclampsia, that with treatment and care might have been saved. Constipation during gestation is a frequent source of danger to the lying-in period. A case proved to me how serious the consequences, when the ignorance of the patient combined with the ignorance and carelessness of the physician. It is the physician's duty to teach his patients the importance of seeking timely advice and to duly warn them of the consequences of not doing so; for in no branch of medicine will an accident or fatal outcome prove more disastrous to the physician.

(*C*) The surroundings and the nursing of the patient should not be left out of the physician's code of duty. The practice of paying one visit after delivery that prevails in some sections of our country is reprehensible.

———o———

No. 160.

THE MECHANISM OF LABOR.

By Jacob Chase Rutherford, M. D.,
Providence, R. I.

The theory of the mechanism of labor, as advanced by all ancient and many modern obstetrical writers, is entirely without foundation. The ground taken that the parturient canal is curved cannot be maintained for a moment when we consider the anatomy of the parts, the changes which take place during pregnancy and the phenomena of labor. * * * The mechanism of labor, briefly, is as follows: In head presentations, occipito-anterior, the head descends in the axis of the uterus in a straight line, until it reaches the trough of the levator-ani muscle, when rotation begins; continuing to descend in the same line, it reaches the bottom of the trough, which is the floor of the pelvis. By this time rotation is completed, and now begins the hardest part of the labor, for the head having reached the floor of the pelvis cannot go any further, but must change its direction and pursue a course at right angles with the one it has been following. This change in direction is brought about by extension of the head into the vaginal canal. As the head extends, the body descends, and by the time the head is fully extended it has passed the vaginal orifice, and the shoulders are at the utero-vaginal angle. They pass the angle by a lateral bending of the body and are followed by the hips and legs.

In occipito-posterior cases labor is prolonged by the impossibility of further flexing an already fully flexed head, and the perineum has to be enormously distended before the head can be delivered.

In face cases mento-posterior delivery is impossible because the head cannot be further extended, and the stiff, straight fetal body cannot be bent around the angle.

A knowledge of the mechanism of head cases embraces a knowledge of the mechanism of other presentations.

The deductions to be drawn from the above theory are: first, the parturient canal is angular, not curved; second, when the presenting part has reached the bottom of the trough in the pelvic floor rotation is complete; third, flexion and extension take place at the utero-vaginal angle; fourth, in the high forceps delivery traction should be made in the line of the uterine axis, and in the low forceps delivery in the line of the vaginal axis.

———o———

No. 161.

THE INDUCTION FOR PREMATURE LABOR.

By J. H. W. Chestnut, M. D.,
Philadelphia, Pa.

The groups of cases whose circumstances may call for the operation for the induction of premature labor include: First, cases of contracted pelves which would render labor at term dangerously difficult to the mother, to the child or to both; second, cases of maternal disease which progressively endanger the life of the mother; third, cases in which in previous pregnancies the child has died in the latter weeks of gestation; fourth, cases of hopeless disease of the mother, for the sake of the child; fifth, cases in which the child is known to be dead, and, sixth, cases complicated by the presence of ovarian, bony or malignant tumors, or by atresia of any part of the normally distensible canal.

The relative number of markedly contracted deformed pelves is very small; in a private obstetrical practice of more than twenty years, averaging from sixteen to twenty cases per month for many years, the writer has met but one case with a conjugate diameter at the brim of less than two and one-half inches; but cases of lesser contraction where the same diameter measured from three to three and three-fourths inches, or where there appeared to be a slight degree of lessening in all diameters were not so uncommon.

In view of considerations set forth in the paper, and of the results of cases therein reported, the writer believes that in cases of deformed pelves where the anterio-posterior diameter at the brim is from two and three-fourths inches to three and one-fourth inches, and in cases of jusso-minor pelves where the same diameter is three and one-half inches—labor should be induced before term, when the conditions described are recognized in due time. The difficulty of diagnosis at the proper time is the obstacle to the more frequent employment of the operation in these cases. The means used to reach a correct diagnosis include the history of the patient, inspection and various external and internal measurements as set forth in the paper.

In the other groups of cases submitted, no difficulty of diagnosis is supposed; and the decision as to the advisability of the operation depends on a comparison of the possible results of prospective conditions and measures; these circumstances are discussed in the paper.

———o———

No. 162. AIDS TO EASY PARTURITION.

By A. J. C. Saunier, A. M., M. D.,
Professor of Gynaecology Clinical College of Medicine, Chicago.

A.—Aids to easy parturition should be considered and their application begun early in life.

B.—Care to be exercised in young women at time of menstruation to prevent undue congestion and to secure free catamenial flow.

After impregnation, diet may influence the amount of suffering undergone at the time of childbirth.

C.—All pelvic troubles, especially inflammations, to be corrected during the period of gestation.

D.—Abridge the first stage of labor by securing frequent and strong uterine contractions, by means of massage of the abdomen and digital assistance at dilitation of the os uteri.

———o———

No. 164. "Occipito-posterior Positions and their Management," by F. C. Furgeson, M. D., Indianapolis, Ind.

[Neither Title nor Abstract received.]

———o———

No. 165.

THE THERAPEUTIC APPLICATION OF CHLOROFORM IN LABOR.

By John N. Upshur, M. D.,
Professor of Materia Medica and Therapeutics in the Medical College of Virginia, Honorary Fellow of the Medical Society of West Virginia, etc., Richmond, Va.

Chloroform.—As therapeutically applied, as a causative factor, predisposing or active in transforming the physiological function into a condition of some form of dystocia.

The question is resolved into this problem. In what cases should chloroform be administered; at what stage of labor; what dangers arise in consequence; at what stage do these complications arise; the best means of combating them; and finally, if these propositions are true, is it justifiable to administer chloroform in natural labor, progressing with satisfactory rapidity?

———o———

No. 166. "The Management of Some Casesof Difficult Labor," by Wm. H. Taylor, M. D., Cincinnati, Ohio.

[Abstract not furnished.]

No. 167. "Forceps Delivery," by James Campbell, M. D., Hartford, Conn.

[Abstract not furnished.]

—o—

No. 168. "The More Frequent Use of Forceps in the Multipara," by Lyman A. Berger, M. D., Kansas City, Mo.

[Abstract not furnished.]

—o—

No. 170. "The Use and Abuse of the Forceps," by W. Frank Haehanlen, M. D., Philadelphia, Pa.

[Abstract not furnished.]

—o—

No 171.

SYMPHYSEOTOMY.

By Henry J. Garrigues, A. M., M. D.,

Professor of Obstetrics at the New York Postgraduate Medical School and Hospital; Consulting Obstetric Surgeon to the New York Maternity Hospital; Gyneacologist to St. Mark's Hospital, etc.

Symphyseotomy was invented and performed by the Frenchman Jean René Sigault in 1777. After having fallen into discredit everywhere else, it was kept alive in Italy, and was dying out there when Marisani revived it in 1866, but without finding imitators elsewhere, until in 1891, his pupil, Spinelli, demonstrated it to Pinard. Thus brought back to Paris, it has spread over the world with such rapidity that it has become impossible to keep accurate account of the statistics.

When the symphysis and subjective ligaments are cut, the limbs bent, and the iliac bones pulled apart, a separation of 7 cm. (two and three-quarter inches) between the ends of the pubic bones is easily obtained without injury to the ilia-sacral joints. The head enters into this gap, and all diameters of the pelvis are considerably increased. The distance between the centre of the promontory and the end of the pubic bones, at the safe distance of 7 cm. (two and three-quarter inches), gains 14 mm. (over one half inch), the other diameters from 17–35 mm. (three-quarters to one and one-half inches).

Symphyseotomy is indicated in a flat pelvis with a true conjugate ranging between 67 and 88 mm. (two and five-eighths to three and one-half inches), but it is difficult below 7 cm. (two and three-quarter inches). In a generally contracted pelvis the upper limit may be extended to 10 cm. (four inches), and we should cautiously approach the lower limit.

Other indications, with which it has been performed, are pelvic tumor, mento-posterior face presentations if the chin cannot be rotated forward, occipito-posterior vertex presentation with impacted head; and it has been proposed in cases of absolute coarctation of the pelvis (*i. e.*, below 5 cm.—two inches) with dead child, in order to facilitate craniotomy and embryotomy.

The sacro-iliac articulations must be movable. There are two chief methods, the sul cutaneous (Morisani's) and the open (Pinard's).

The child may be left to be expelled by uterine contractions, or removed with forceps, or turned and extracted.

Considerable lesions of the soft parts have occurred even in the hands of first-class operators. In many cases the hemorrhage has been profuse and sometimes difficult to check. Most children are born more or less asphyctic, and in some there has been fracture of the skull.

Symphyseotomy has come to stay and deserves a large place in the practice of skillful operators, but should not be attempted by the average accoucheur.

In lying-in hospitals and private practice of specialists it should take the place of craniotomy on the living child and induction of premature labor, in which the infantile mortality is over forty-three per cent.

Cæsarean section should be limited to cases that lie beyond the domain of symphyseotomy. Symphyseotomy has several times been successfully performed twice on the same woman.

——o——

No. 172. "What has Surgery done for Modern Obstetrics," by Thomas Opie, M. D., Baltimore, Md.

[Abstract not furnished.]

——o——

No. 173.

RECENT SURGICAL ADVANCES AND THEIR RELATION TO CONSERVATIVE OBSTETRICS.

By W. Reynolds Wilson, M. D.,

Visiting Physician to the Philadelphia Lying-in Charity; Physician to the Out-patient Department for Diseases of Women, German Hospital, Philadelphia., etc.

In view of the fact that the science of obstetrics is the most stable of medical sciences in which fixed mechanical laws largely determine both the event and the conduct of parturition, the influence of modern surgery in modifying obstetrical practice is unexpected.

This influence is observed in the present treatment of abortion, ectopic gestation, dystocia, in contracted and deformed pelves, septicemia.

The operations which have become recognized obstetrical procedures in these conditions are: in abortion, curetting in order to remove every trace of decidual tissue, irrespective of symptoms of retention; in ectopic gestation, the removal of the gestation sac as soon as the diagnosis has been established, irrespective of the viability of the fœtus; in impeded labor, Cæsarean section and symphyseotomy; in septic infection, curetting and drainage by means of gauze; cœliotomy for peritonitis, and supravaginal hysterectomy for lymphatic infection of the mucosa.

Surgery deserves the lasting praise of the profession for the scientific treatment of tubal pregnancy, no surgical procedure being too radical for this condition, but of all these procedures the active treatment in abortion and in septicæmia and the substitution of

symphyseotomy for the forms of treatment formerly recognized in dystocia from contracted pelvis, are to be questioned.

The conservative treatment with exact indications is illustrated in the following five hundred cases from the records of the Philadelphia Lying-in Charity, and deductions are drawn from these cases showing instances where surgical treatment in cases of abortion, septicæmia and dystocia was replaced by expectant treatment, with results favorable to the latter method.

Analysis of cases. Statistics.

—o—

No. 174. "Puerperal Peri-uterine Inflammations; their Pathology and Treatment," by J. Foster Scott, M. D., Washington, D. C.

[Abstract not furnished.]

—o—

No. 175.

PUERPERAL INFECTION.

By Edward A. Ayers, M. D.,
New York City.

Our views to-day as to the treatment of puerperal infection are in a great state of confusion. A dozen years ago the main line of treatment was that of general, systemic remedies, such as alcohol, morphine, cathartics, and external applications. In a short while a recognition of the germ character of the disease led to the use of intra-uterine and vaginal irrigation. The extent to which this method of treatment has been carried is a marvel, not to say a terror. Few doctors refused its aid, most doctors employed it to arrest the disease on suspicion, and many considered their cases neglected if an intra-uterine douche was not administered after delivery in every case.

Following in the train of this method is a list of failures to prevent or cure infection and a startling number of deaths from mercuric poisoning that have developed a strong opposition to local douching.

The efforts to find something better than the old opium and whisky treatment has given laparotomists an excuse for testing the merits of abdominal drainage, or exsections of purulent tissues in some form of this disease's varied pathology.

There is a grave fault in most of the discussions of this subject, namely, the lack of pathological classification, by which we find in various cases of puerperal infection much greater differences than in many distinct diseases.

Puerperal infection, caused by unclean manipulation of the "examiner," or by abscess in the labia, or the vagina, or uterus, or tubes; or by germs present in the genital tract at the time of labor, as in gonorrhea and possibly in purulent leucorrhea, or a sloughing fibroid, or decomposing fœtus, or placenta, or partially organized blood-clot, or placenta succenturiata, or uterine rupture, etc., finds a footing somewhere along the genital tract from the vulva to the fundus uteri.

Let us surgically consider the question of local treatment. If a wound can be thoroughly irrigated and efficient drainage and protection secured, in the great majority of

cases it will progress uninterruptedly to complete healing. If the first requisite "thorough irrigation" can be had in puerperal infection, and it must be secured promptly, we may expect, and clinical work endorses the statement, a prompt and satisfactory cessation of the infectious character of the inflammation.

But we do not secure this "thorough irrigation" in many cases, and this is why the irrigation treatment is falling into disrepute.

Where is the cause of failure located? If infection starts at some site of abrasion in the vagina, and prompt irrigation is employed, the infection will disappear in the great majority of cases. It can at least be kept from reaching the uterus. Likewise an infection starting on the surface of the endometrium, where but a slight superficial abrasion exists, will respond satisfactorily to irrigation.

But suppose the labor has been long and severe; that the head of the child remained long in one place, pressing the uterine wall against the bony structure of the pelvis, with the consequent death of a portion of tissue en masse, if infection has obtained a place it will be present at the base of this loosening slough ere the dead mass has separated. Would you expect irrigation to cleanse the tissue beneath this slough?

Or suppose, the labor was very "laborious," followed by great muscular exhaustion of the uterus, mild relaxations occurring following the completion of the patient's toilet, with the formation of blood-clot in the uterine cavity.

This mass may be retained for days, I have so observed it, and become soft and foul-smelling, in short, decomposed. Irrigation will not render this mass, which may be as large as an orange, innocuous.

Or suppose following an exhausting labor, with threatened or supervened post-partum hemorrhage, cessation of bleeding is secured by the formation of thrombi in the sinuses of the uterus, nature's resource when the doctor fails to make efficient use of bi-manual compression, if the germs have made their bed in these germ inns, how is irrigation going to kill them or drive them out?

The thrombi penetrate the wall of the uterus. The antiseptic fluid flowing over the surface will not touch the inner mass.

The presence of a placenta succenturiata will also, if unremoved, put an undeserved failure upon irrigation.

Let me briefly outline the indications for these various methods of local treatment.

First.—A normal labor with steady and easy advance of the child, with complete removal of the placenta, followed by good contraction and retraction of the uterus, with no indication of a previously existing purulent condition, or of fibroids, but yet with infection, indicates that simple irrigation should do all possible, with perhaps the introduction of iodoform gauze, though I would prefer not to use it unless the discharge became purulent.

Use a fountain syringe held not more than a foot or two above the patient's hips, with the patient lying on her back. A solution of bi-chloride, 1-4000 at a temperature of 105 degrees, one to two quarts should be used, followed by a pint or quart of freshly boiled water cooled sufficiently. I think my tube, which you see has a groove along the under side for exit of the fluid, is made of hard rubber and has a hole at the end as well as sides, permitting the stream to reach all parts at the fundus and without danger of

forcing fluid through the tubes of the uterus while the force is made so slight by keeping the syringe bag low, and cannot possibly break, is preferable to Chamberlain's glass tube.

The indication for repeated irrigation must be the rise of temperature. If the symptoms do not promptly subside I would use iodoform gauze following irrigation.

SECOND.—A labor history that indicated prolonged pressure of the head would suggest possible gangrenous sloughing, and would call for the use of iodoform gauze from the start, to aid drainage, stimulate repair and lessen decomposition.

THIRD.—A history of post-partum hemorrhage, or of torn placenta, with the presence of unusually large shreds of tissue in the lochial discharge, would call for an exploration of the uterine cavity. Putting the patient in Sim's position, a large blunt curette should be used in conjunction with irrigation, and the question answered, "Is debris present?" A thorough curettement followed by the introduction of iodoform gauze would be indicated.

FOURTH.—A case where, on examination, the uterus is found to be relaxed, soft, "doughy," pitting on pressure, with a very offensive discharge, very purulent in character, and with general symptoms of high fever, profuse sweats and great prostration, indicates purulent infiltration of the body of the uterus. From a theoretical standpoint it may be said with assurance that intra-uterine irrigation will do nothing but possibly lower the temperature a little for a half hour. Pus is present throughout the connective and muscular tissues of the body of the uterus.

Irrigation of the cavity cannot possibly reach it.

As well expect a stream of water flowing over the mammary gland, the seat of many abscesses, to wash away the pus within.

Post-mortem examination of such cases shows pockets of pus dispersed throughout the muscular tissue that *have no outlet into the uterine cavity.*

What resources have we in such cases for cure?

General supportive treatment through the long weeks of struggle, or, may we not declare in favor of abdominal hysterectomy? In any other part of the body we would employ in such a condition, multiple incisions with the introduction of drainage tubes. We cannot do that here; it is possible to remove the diseased mass altogether.

——o——

No. 176. "Infection of the Kidneys after Labor," by BARTON COOKE HIRST, M. D., Philadelphia, Pa.

[Abstract not furnished.]

——o——

No. 177. "Puerperal Eclampsia," by J. G. CECIL, M. D., Louisville, Ky.

[Abstract not furnished.]

No. 178. "Puerperal Eclampsia," by Theophilas Parvin, M. D., Philadelphia, Pa.
[Abstract not furnished.]

—o—

No. 180.

INDUCTION OF LABOR AND ACCOUCHEMENT FORCE IN THE PROPHYLAXIS OF ECLAMPSIA.

By Charles Jewett, A.M., M.D.,
Brooklyn, N. Y.

Whatever room there may be for difference of opinion with reference to the etiology of child-bed eclampsia and the nephritis of pregnancy, it is impossible to lose sight of the fact that the ultimate cause of the trouble is the presence of the child in utero. So long as the cause remains our resources either for the treatment or prevention of puerperal convulsions are at most an uncertain reliance, and too often prove wholly futile. A pregnancy nephritis once established the kidneys never regain their normal condition while the pregnancy continues. Dietetic, diaphoretic and cathartic measures are of great value as temporary expedients, but they do not cure.

The extra tax upon the crippled kidneys increases rapidly in the later weeks of gestation and the danger grows with the growth of the child. The woman is never free from the possibility of a sudden explosion of uræmic symptoms. On the occurrence of convulsions the gravity of the condition is enormously increased, and with each succeeding attack it becomes less and less amenable to treatment. After labor, on the other hand, the nephritic symptoms subside and prompt recovery is the rule. Convulsions in most cases cease with the birth, the attacks seldom begin in the post-partum period, and in any event they yield more easily to ordinary remedial measures in the puerperal than in the pregnant or parturient woman.

The chief desideratum, therefore, in the prophylaxis of puerperal eclampsia is the evacuation of the uterus. The writer believes that under modern methods a more aggressive policy is justifiable in the prevention of eclampsia than is generally pursued. It is difficult to formulate definite rules, but in general after the full period of viability little reliance should be placed on other than obstetric measures. In the presence of any but the milder forms of nephritis, immediate and rapid termination of the pregnancy offers the best prospect for both mother and child. The indication is especially urgent in the last month of gestation, when the child has little to gain and the mother frequently much to lose by delay.

Under the methods formerly employed the induction of labor was a difficult and tedious undertaking. With the intra-uterine injection of glycerine, recently introduced by Pelzer, uterine contractions may be set up at will and the birth terminated with rapidity and safety.

Labor begins immediately as a rule and is actively established within two hours. The intra-uterine injection of glycerine acts not only to inaugurate the pains, but in greater or less degree to maintain them. Its effect in many cases seems to persist to the close of the third stage if well retained. To act at best advantage the glycerine must be carried high up toward the fundus, must be widely diffused between the membranes and the uterine wall by gradual injection and its too rapid escape prevented by keeping the patient in the latero-prone position. In many cases no further interference is called for. In imminent danger of convulsions, if the labor is not promptly terminated, it should be completed by manual dilatation of the cervix under chloroform and resort to forceps or version. Under a rigid asepsis and with avoidance of lacerations, accouchement forcé is a safe and conservative procedure. Manual dilatation should not be undertaken before the supra-vaginal portion of the cervix is obliterated. In simple cases it is a harmless interference which may save hours of labor and continued danger. In difficult cases with a rigid cervix the operation is even more urgently indicated and is safe, provided sufficient care is used. From ten minutes to two hours will usually suffice to complete the dilatation and terminate the birth. The total length of labor will seldom exceed twelve hours; in emergency, may be reduced to five or six.

Illustrative cases.

—o—

No. 181.

CONTRIBUTIONS TO THE STUDY OF PUERPERAL SEPTICÆMIA.

By Antonio Jose Amadeo, M.D.,
Maunabo, Porto Rico.

This paper contains a résumé of the twenty years of obstetrical experience of the author in the town of Maunabo, island of Porto Rico. He says that until lately a physician was there very seldom called to attend a case of confinement, and that puerperal infection is much more frequent in the towns, on account of their bad hygienic conditions, than in the country. He holds the opinion that women of a lymphatic temperament are more liable; chronic metritis and leucorrhea are also contributing factors; anæmia, and all the manifestations of lymphatic cachexia are unfavorable signs for the prognosis.

In regard to diagnosis, he says that paludal fevers sometimes make their appearance immediately after parturition, but sulphate of quinine settles the doubt. Sleeplessness, nervous disquiet, and ill-smelling discharges are alarming symptoms.

His plan of treatment consists in local antisepsis to reduce the hyperthermia, to open and disinfect abscesses, sustain the vital forces, and combat peritonitis should it make its appearance.

He complains of the custom that prevails in Porto Rico, of receiving the visit of many friends in the lying-in room.

No. 182. "A Study of Dystocia," by Dr. Salvador Garciadiego, Guadalajara, Mexico.
[Abstract not furnished.]

—o—

No. 183.

A METHOD OF PERFORMING RAPID MANUAL DILATATION OF THE OS UTERI, AND ITS ADVANTAGES IN THE TREATMENT OF PLACENTA PRÆVIA.

By Philander A. Harris, M.D.,
Paterson, N. J.

History of eight successful cases embracing the author's entire experience in the management of Placenta Prævia. The method of dilatation to be shown at reading, and to be illustrated in published report by the aid of ten photo-engravings, claiming that the undilated os in placenta prævia, can, under chloroform or ether anæsthesia, be enlarged to a circumference of ten to eleven inches in from fifteen to twenty-five minutes; thus rendering it easily possible to effect rapid delivery of child without waiting for the development of labor, or of employing more tardy and inefficient methods of dilatation to any degree desired by the operator.

Photographs of which are herewith forwarded.

—o—

No. 184.

EXPRESSION OF THE BLADDER IN POST-PARTUM RETENTION OF URINE.

By Sebastian Cuervo Serrano, M.D.,
Sancti-Spiritus, Cuba.

This article is formed of eighteen clinical notes, and constitutes the second part of a former paper by the author on the post-partum treatment of retention of urine. He believes that the retention is directly connected with the degree and time of pressure of the head of the fœtus against the symphis, which may be so great as to give rise to a vexico-vaginal fistula. He does not believe that the use of forceps produces retention of urine.

The manner of procedure is very much like the expression of the placenta by Crede's method, taking especial care to exert pressure in the fundus of the bladder to force the urine out and not backward.

The usual employment of the catheter Dr. Cuervo thinks produces cystitis, and is disagreeable to many women, besides the risk of infection. He puts in practice his compression method of emptying the bladder whenever it becomes necessary to do so, and says that at the end of the third or fourth day the bladder recovers its contractile function.

His opinion is that the post-partum retention of urine is due to vesical paresis caused by compression.

——o——

No. 185.

THE APPLICATION OF GRAPHIES TO THE FŒTAL HEART SOUNDS.

By Hugh Hamilton, M.Sc., M.D.,
Harrisburg, Pa.

I. The securing of these tones by a special instrument.

II. The transmission of these notes to the human ear.

III. A recording of them so that they may be permanent and compared on the tablet with those of the *mother* made at the same instant.

IV. Its practical application in doubtful pregnancy, whether synchronous or otherwise.

Demonstration—Time twelve minutes.

——o——

No. 186.

UTERINE COMPRESSION.

By Jose Maria de Ita, M. D.,
Pueblo, Mexico.

The author, who for the last ten years has been in charge of the Maternity Hospital of the city of Pueblo, gives credit to Dr. Juan Maria Rodriguez for having first introduced and practiced uterine compression in Mexico. He is perfectly satisfied of its great utility as an aid in the production of uterine contraction. He practices the operation in the following manner:

The woman lies flat on her back, the operator stands by her side, extends his arms and presses the hands with the two thumbs together over the abdomen immediately above the fundus uteri; at first only slight digital compression is made, slowly increasing the force, imitating the rhythmical contraction of the uterus. It is necessary sometimes, he says, to continue the pressure steadily, in order to terminate the delivery at once.

The indications for uterine compression he groups thus:

(1) In all cases of uterine inertia.

(2) To help the traction made with the forceps.

(3) To expel the trunk when the head of the child has already been born, either by nature's forces or by traction; in this last event, with the uterine compression one avoids the necessity for further traction on the head, or inserting the finger in the axilla to draw out the rest of the body.

(4) To hold the head bent after the expulsion of the trunk, and thus helping to its birth, in a case of feet presentation.

(5) To overcome the resistance of the perineum and avoid the application of forceps.

(6) To fix the head in the superior strait in cases where the application of delivery forceps are necessary, or when the use of craniotomy forceps becomes a necessity.

(7) To facilitate the expulsion of the placenta in cases of hemorrhage.

(8) To aid the uterus in throwing out the clots retained in its cavity, should a secondary hemorrhage take place.

The author says that in case the uterus loses the power to contract, this mechanical compression will take its place.

When the *accoucheur* has no assistant with him, he ought to practice the operation with only one hand aided by the forearm, and the other hand is used to support the perineum.

—o—

No. 187. "Prolapsus Uteri," by E. F. Tucker, M. D., Portland, Oregon.

[Abstract not furnished.]

—o—

No. 188. "Neurotic Effect of Perverted Dancing, Observations and Statistics made upon the Three Races, Asiatic, Ethiopian, and Caucasian," by E. J. Chopin-Minard, M. D., Brooklyn, N. Y.

[Abstract not furnished.]

—o—

No. 189. "A Study of Gestation and the Phenomena at Term from the Standpoint of the Doctrine of the Conservation of Energy," by Geo. F. Hurlburt, M. D., St. Louis, Mo.

[Abstract not furnished.]

No. 190. "Obstetrics among the Negroes of South Carolina," by P. Gourdin De Saussure, M. D., Charleston, S. C.

[Abstract not furnished.]

—o—

No. 191. "The Use and Abuse of the Obstetric Forceps," by J. Postman Chesney, M. D., St. Joseph, Mo.

[Abstract not furnished.]

No. 192. "The Modern Cæsarian Section with Demonstration upon a Mannikin," by GUSTAV A. ZUICKE, M. D., Cincinnati, Ohio.

[Abstract not furnished.]

—o—

No. 193. " Puerperal Convulsions," by RICHMOND KELLY, M. D., Portland, Oregon.

[Abstract not furnished.]

SECTION ON GYNECOLOGY AND ABDOMINAL SURGERY.

HONORARY PRESIDENTS:

Dr. Rafael Benavides, Lima, Peru; Dr. Young H. Bond, St. Louis; Dr. Domingo F. Cubas, Havana, Cuba; Dr. Clinton Cushing, San Francisco; Dr. Wm. E. B. Davis, Birmingham, Ala.; Dr. Christian Fenger, Chicago, Ill.; Dr. Frank P. Foster, New York; Dr. Thos. H. Hawkins, Denver; Dr. Wm. D. Haggard, Nashville; Dr. Edward W. Jenks, Detroit; Dr. Joseph Taber Johnson, Washington; Dr. Ernst S Lewis, New Orleans; Dr. Andres Lopez Martinez, Tegucigalpa, Honduras; Dr. Richard B. Maury, Memphis; Dr. Thomas E. McArdle, Washington; Dr. Lewis S. McMurtry, Louisville; Dr. Roberto Moericke, Santiago, Chile; Dr. Robt. T. Morris, New York City; Dr. Paul F. Mundé, New York; Dr. Joseph Price, Philadelphia; Dr. Charles A. L. Reed, Cincinnati; Dr. John C. Reeve, Dayton, O.; Dr. José Manuel de los Rios, Caracas, Venezuela; Dr. George H. Rohé, Catonsville, Md.; Dr. James F. W. Ross, Toronto, Canada; Dr. Albert Vander Veer, Albany; Dr. Milo B. Ward, Topeka; Dr. Henry P. C. Wilson, Baltimore· Dr. Nicolás San Juan, City of Mexico, Mexico; Dr. F. Henrotin, Chicago, Ill.

EXECUTIVE PRESIDENT:

Dr. Wm. Warren Potter, 284 Franklin Street, Buffalo, N. Y.

SECRETARIES:

Dr. Brooks H. Wells (English-Speaking), 71 W. 45th St., New York, N. Y.	Dr. Ernest W. Cushing (Spanish-Speaking), 168 Newbury St., Boston, Mass	
Dr. Maglioni L.C. Llobet [Victoria 737]	Buenos Aires	Argentine Republic.
Dr. Manuel Cuellar (hijo)	Sucre	Bolivia.
Dr. Luiz da Cunha Feijo	Rio de Janeiro	U. S. of Brazil.
Dr. Gabriel Casuso [Virtudes 37]	Havana	Cuba.
Dr. C. E. Gooding	Bridgetown	Barbados, W. I.
Dr. José M. Buendia [Calle 10, núm. 212]	Bogota	Republic of Colombia.
Dr. Moises L. Castro	Cartago	Costa Rica.
Dr. Mariano Fernandez Padilla	Guatemala City	Guatemala
Dr. Ribaul	Port au Prince	Haiti.
Dr. G. P. Andrews	Honolulu	Hawaii.
Dr. José Maria Ochoa Velásquez	Comayagua	Honduras.
Dr. Saunders	Kingston	Jamaica, W. I.
Dr. Ricardo Fuertes [calle Don Juan Manuel núm. 4]	City of Mexico	Mexico.
Dr. M. J. Barrios	Rivas	Nicaragua.
Dr. Enrique Pouéy, [Uruguay 371]	Montevideo	Uruguay.
Dr. Ezequiel Jelambi	Caracas	Venezuela.

SECTION ON GYNECOLOGY AND ABDOMINAL SURGERY.

No. 201.

ON THE VALUE OF CERTAIN METHODS OF SURGICAL TREATMENT FOR CHRONIC PROCIDENTIA UTERI.

By Augustus P. Clarke, A. M., M. D.,
Cambridge, Mass.

The operation for shortening the round ligaments will often prove of service. These ligaments undoubtedly act as moderators to any excessive muscular action which may interfere with the normal equipoise of the uterine tissue. In chronic prolapse the ligaments will be found to have lost their power for contractility. In those cases in which they may respond to the presence of stimulus they will in great measure prove powerless in preventing the occurrence of prolapse, for their function is rather to preserve the uterus from a backward displacement than to overcome the factors that enter into the causation of its descent. Much success has been obtained in those cases in which high posterior colporrhaphy and high perinorrhaphy have been undertaken. Though much relief follows in some cases and most favorable results in others, there is nevertheless a class of cases which rarely improve under such measures of procedure.

In that class of cases in which only one ovary has been removed and the menopause has not been reached, the uterus may still carry on its normal functional activity. In those cases in which both ovaries and tubes have become seriously affected, and in which there has been an intractable prolapse, resort to hysterectomy appears to afford the best chances for permanent success. The favorable results achieved by resort to vaginal hysterectomy as carried out by many distinguished operators for relief of malignant disease are, at some length, considered. The chief danger to be encountered in the operation for any cause is that arising from hemorrhage. By the strict observance, however, of antiseptic precautions and by the careful suturing of the tissues before excising them, the danger will be reduced to a minimum. The author reports, as occurring in his practice, cases of intractable prolapse, in each of which after other operative measures had been undertaken without success he was finally compelled to resort to vaginal hysterectomy.

The author's experience in these and in other cases leads him to say that the operation is not a difficult one; that it does not expose the patient to so many dangers as are incident for the most part to other methods of procedure, especially to those of abdominal section. A resort to hysterectomy effects a permanent cure. The author refers to Goodell, Irish, Krug and to others as among the pioneers in the work of vaginal hysterectomy for relief of such severe cases of procidentia.

No. 202. "Hysterectomy for Fibroids: Methods and Results," by Joseph Price, M. D., Philadelphia, Pa.

[Abstract not furnished.]

—o—

No. 203.

THE TREATMENT OF SUPPURATIVE DISEASES OF THE FEMALE PELVIC ORGANS.

By H. J. Boldt,
New York City.

These conditions can be treated only one way, if we intend to do justice to the patient and are conscientious enough to take no hazardous risks. Numerous voices have been heard during the past two years putting forth doctrines as to the management of pyo-salpinx, other than surgical, that I feel called upon to make some remarks.

In addition to (1) pyo-salpinx, I shall refer to (2) ovarian abscess; (3) suppurative para-metritis and (4) suppurative perimetritis. There may be ground to differ as to the method of operation, even in the same patient, but there certainly should not be a difference on the principle.

—o—

No. 204. "The Significance of Endometritis and the Necessity for its Early Cure," by Joseph Tabor Johnson, M. D., Washington, D. C.

[Abstract not furnished.]

—o—

No. 205.

AN INQUIRY INTO THE ETIOLOGY OF MENTAL DISTURBANCES FOLLOWING OPERATIONS UPON THE PELVIC ORGANS IN WOMEN.

By George H. Rohé, M. D.,
Catonsville, Md.

The author claims that an analysis of the evidence available shows that a large proportion, perhaps the majority of cases, of mental disturbance following operations upon the pelvic organs, is due to the same causes that produce insanity subsequent to surgical operations generally.

These causes are in some cases shock; in others, sepsis; in others, intoxication from drugs or antiseptics used during or after the operation.

In a certain proportion of cases of insanity following operations upon the pelvic organs in women, the mental disturbance is due to the artificial induction of the menopause.

In a minority of cases, the mental disturbance is probably due to the shock of the operation in a person hereditarily disposed to insanity.

—o—

No. 206.

ONE HUNDRED OPERATIONS FOR SEVERE STRUCTURAL DISEASE OF ABDOMINAL AND PELVIC ORGANS OF WOMEN.

By I. S. Stone, M. D.,
Washington, D C.

Summary.

	CASES.	DEATHS.
Pelvic Abscess	17	5
Extra Peritoneal Abscess	1	1
Pyæmic Intra Abdominal Abscess	1	1
Tubo-ovarian Abscess	21	1
Pyo-salpinx	6	0
Hydro-salpinx	2	0
Cystic Ovary (Pyæmic uterus)	1	1
Cystic Ovaries. Result of infection.	3	0
Ovarian Tumor	6	0
Myoma Uteri	11	3
Hysterorrhaphy	7	1
Exploratory Section	5	0
Inguinal Hernia	1	0
Vaginal Hysterectomy	4	0
Oöphorectomy for Uterine Myoma	2	0
Old Sinus	1	0
Cholelithotomy	1	0
Cyst of Kidney	1	0
Nephrotomy	1	0
Extra-uterine Pregnancy	1	1
Abdominal Hemorrhage	1	0
Battey's Operation	5	0
Tubercular Peritonitis	1	1
	100	15

No. 207. "Two Cases of Ectopic Gestation with Unusual Complications, Laparotomy and Recovery," by T. H. HAWKINS, Denver, Colo.
[Abstract not furnished.]

—o—

No. 208. "Ought Craniotomy to be Abolished," by W. H. MYERS, M. D., Fort Wayne, Ind.
[Abstract not furnished.]

—o—

No. 209. "What I have Learned in the Surgery of the Gall-bladder," by JOSEPH EASTMAN, M. D., Indianapolis, Ind.
[Abstract not furnished.]

—o—

No 210.

THE CAUSES OF STERILITY IN WOMAN AND TREATMENT, WITH CASES.

BY DE SAUSSURE FORD, M. D.,
Professor, Practitioner of Practical Surgery, Medical College of Georgia, Medical Department University of Georgia.

I. The vulvo-vaginal gland, analogue to Cooper's gland in the male, its secretion discharged into fossa navicularis, may be abnormal; if so, may deteriorate spermatozoal life, to be impotent to fecundate ovule.

II. Uterine and fallopian muscular coats, if in irritation, may affect migration of spermatozoids, and ovules.

III. Excretion from mucous, open-mouthed follicles of uterus must be normal for conception, and any uterine trouble may vitiate it—e. g., interruption of circulation, either arterial or venous.

IV. Abnormality of mucous of fallopian tubes, will militate against fecundation.

V. If ovaries are in chronic inflammation, fecundation will be aborted.

VI. Mechanical interruption, preventing migration of either spermatozoids or ovules, is a bar to conception.

VII. Masturbation and excessive coition are factors causing illiteration in vagina and uterine functions by congestions and these may invite flexions, which are mechanical barriers.

VIII. All passages must be bathed with normal mucous excretion.

IX. Position, during coitus, or immediately thereafter may be important, especially in multipar, with an old and extensive laceration of perineum.

TREATMENT.

I. Correct flexions by rapid dilatations, and relieve any atresia of any of the passages.

II. Relieve congestions and inflammations by local venesection, and especially by applications of undiluted spirits of turpentine.

III. The therapeutic value of turpentine in all inflammations of mucous membranes.

IV. Retain the uterus in its intrinsic natural form, and in its relation with its surroundings, by pessary, or tamponades.

—o—

No. 211.

DRAINAGE OF OVARIAN CYSTS WHERE THE ADHESIONS ARE SUCH THAT IT IS IMPOSSIBLE TO REMOVE THE SAC.

By A. Vanderveer, M.D.,
Albany, N. Y.

Review of the symptoms and diagnosis of severe adhesions: The fallacy of always being able to tell definitely and with certainty the nature and extent of such adhesions. Some valuable time lost, some additional nerve strain given the patient by too frequent and too severe a manner exhibited in the examination when adhesions are suspected. Some considerations as to the rapidity in which adhesions will at times form.

Careful study of previous history of patient as to traumatisms that may have occurred in the case, with or without any marked evidence of local or general peritonitis having supervened. Brief consideration of the subject of exploratory incision. Discussion of the necessary, careful procedure in the care of the adjacent parts, when loosening and breaking up strong adhesions.

Presentation of the subject, to what extent shall we resect portions of the intestinal tract, when implicated with the tumor, by reason of the adhesions. What course to pursue when portions of the large intestines are seriously implicated. When is it judicious to cease to regard the strength of the patient, length of operation, and if drainage of the whole or part of the sac or sacs is considered the safest course to pursue as to the recovery of the patient.

Some considerations as to the manner and way in which the drainage shall be carried out.

Careful discussion as to the relative danger between pelvic and abdominal adhesions. To what extent do we now make use of the preparations of iron and the thermo-cautery in controlling hemorrhage resulting from adhesions. The use of the glass tube or other forms of drainage for the same purpose. The dangers of sapraemia and septic conditions in cases of incomplete removal of the sac. General treatment of such cases as where, of necessity, drainage becomes the only method of procedure.

—o—

No. 213. Paper by H. A. Kelly, M. D., Baltimore, Md.

[Neither Title nor Abstract furnished.]

No. 214.

THE RELATION OF URINARY CONDITIONS TO GYNECOLOGICAL SURGERY.

By Charles P. Noble, M. D.,
Surgeon-in-Chief to the Kensington Hospital for Women, Philadelphia.

(1) That albumen is often observed in the urine of gynecological patients.
(2) That the presence of albumen often is not significant of serious disease.
(3) That tube casts are not always significant.
(4) The secretion of urine is diminished after operation for several days.
(5) Albumen and tube casts are present in the urine with greater frequency after than before operation.
(6) The question of ether *versus* chloroform in relation to suppression of urine after operation.
(7) Illustrative cases.
(8) Conclusions.

—o—

No. 215. "Shortening of the Round Ligaments in Retro-position of the Uterus," by T. Johnson Alloway, M. D., Montreal, Canada.

[Abstract not furnished.]

—o—

No. 216. "Total Extirpation of the Fibroid Uterus," by Florian Krug, M. D., New York City, N. Y.

[Abstract not furnished.]

—o—

No. 217. Paper by J. Algernon Temple, M. D., Toronto, Canada.

[Neither Title nor Abstract furnished.]

—o—

No. 218.

VAGINAL HYSTERECTOMY.

By E. E. Montgomery, M. D.,
Philadelphia, Pa.

This is now an accepted operation. Under improved methods the greatly reduced mortality, with the increased immunity against relapse, renders it the effective operation in malignant disease where confined to the uterus. In uterine fibroids of small size, whether involving the cavity of the uterus or its walls, it is preferable to dilatation and enucleation for their removal. It may be done in some cases of prolapsus of the uterus,

particularly when accompanied with extensive ulceration of the cervix. Its performance for pelvic inflammations demanding removal of the ovaries and tubes, may be questioned. The use of the clamps greatly expedites the operation and saves the patient from the effects of shock resulting from a prolonged operation and long continued anæsthesia. In twenty-one cases in which the writer has performed vaginal hysterectomy, sixteen were done for undoubted malignant disease, in one of which there was epithelioma of the cervix and a number of fibroids in the body of the uterus; three for fibroids, and two in which the diagnosis was doubtful. In twenty-one cases there was one death from tetanus on the fourteenth day.

——o——

No. 219.

SURGICAL TREATMENT OF PERITONITIS.

By M. B. Ward, M. D.,
Topeka, Kan.

It is not my purpose to attempt to enlighten the distinguished gynecologists whom I now have the pleasure and honor to address, by presenting this brief essay, but rather that I may add my "mite" relative to the importance of early surgical treatment of peritonitis. It is, indeed, very essential that well-established surgical procedures should be constantly kept plainly engraved on the sign-boards so as to guide the members of our profession.

Human life is dear to the possessor and fondly cherished by loved ones, therefore, we need the wisdom of all who have had experience—even though it be limited—to guide us when brought face to face with conditions which seem to demand surgical interference in order to save life, when, perhaps, the patient *might* recover without an operation, and does succumb on account of the operation. So long as time shall last, the profession will have to deal with such uncertain problems. Almost every week, and right under our personal observation, men and women are dying of peritonitis, caused by appendicitis or disease of pelvic organs, and nothing is done to save their lives, except it be to administer opium or salines, with the vain hope that each hour will show improvement. But, alas, nothing can be done, the last opportunity for surgical interference is past, our hands are folded on our breasts and we exclaim, "The Lord's will, and not ours, be done."

Those who recover from peritonitis without an operation, or, rather, are symptomatically cured, are almost certain to suffer from recurring attacks which are more serious and dangerous than the first onslaught.

When called upon to treat this character of cases, we all are inclined to be timid and hesitate. Is it not the experience of all surgeons that an operation is only recommended after every other known remedy has been tried and an operation is the only source of relief?

This paper is written especially that I may record the statement that surgical interference, when properly done, should never increase the mortality. I do not wish to

convey the impression that I would operate on every case of acute obstruction of the bowels. Peritonitis and intestinal obstructions are essentially different. The symptoms of peritonitis are usually rather apparent. An important landmark to the diagnosis of peritonitis is the fact that while the bowels are usually locked, they will act after the persistent use of laxatives and enemas, but the evacuation of the intestinal tract does not relieve the distention or tenderness. In other words, when the patient seems to be doing well they often are in the greatest danger. I call attention to this feature of the subject in order to emphasize the importance of watching, most carefully, patients who have symptoms of peritonitis and claim they feel relieved after having a movement of the bowels.

I also think the profession should be warned against the delusion that, because the patient's bowels have moved, there is no more danger. I have myself been led astray in this direction, and have told patients that they were getting along nicely, when, afterward, I found myself mistaken. I would, therefore, urge the propriety of operating on all cases whose history points to recurring attacks, where other conditions give promise of success. I would also urge the necessity of early surgery in all acute attacks where the gravity of the onslaught indicates that the appendix vermiformis is the cause of the inflammation, or even when it is found to be a leaking pus tube or ovarian abscess. Perhaps it is not necessary that I should add in this connection that we cannot with propriety rush into every abdomen with the knife that seems to demand operative procedure, for often it is essential to success that certain preparations be first made by way of getting the patient in the best possible condition for operating. The preparation of patients can only be carried out to perfection in elective cases.

It was my intention to report some cases, but perhaps a brief reference to two bad cases will suffice the purpose.

In April of this year I was summoned by telegram to a distant part of this State to operate on Mr. W., for appendicitis. The summons came from the attending physicians, and was not authorized by the patient or friends. I arrived at the patient's residence at five o'clock in the morning, and was at once informed by the friends that they were sorry that I had been sent for, because the patient was greatly improved, having had no morphine for the last twenty hours. Prior to this time large doses of morphine had been given to partly control the intense suffering, After an examination, I, too, was led to think the patient was doing quite well; his temperature was 101 and pulse 120. The abdomen was moderately distended and very tender, the most sensitive point being over the cecum. I watched the patient carefully for four hours before I operated. The first two hours of this watching I felt certain that an operation would not be necessary and so informed the friends, but later it was noticeable that the patient was failing, and failed so rapidly it seemed that he could not live but a few hours at the longest. Upon opening the abdomen, the odor was that of fecal matter. The intestines were in a condition akin to gangrene; the adhesions were so profound and universal that it was impossible to move a single coil of intestines without tearing it loose from its moorings. The cecum was so nearly gangrenous that my finger perforated the gut while carefully examining the condition. The opening in the intestine was was about one inch in length. This I closed by the use of fine silk sutures. The adhesions were broken up until the patient began to show signs of shock. Although I had apparently accomplished but little, yet I had succeeded in

separating the intestines so as to be able to flush the cavity most thoroughly. Several gallons of warm sterilized water were used. The abdominal opening was packed with iodoform gauze and the patient placed in bed. In one hour after the operation the patient's symptoms were decidedly better and he expressed himself as greatly relieved. I informed the friends that the patient could not recover, that the inflammation had gone to the very verge of suppuration or breaking down of the tissues, and I thought it impossible for the intestines to resume their natural functious. However, after twelve hours, I felt hopeful, but remained with the patient twenty-four hours after the operation, leaving him in the care of two bright and experienced physicians. On two or three occasions the patient had considerable pain, and on one occasion suffered very greatly for a few hours, during the course of his convalescence, but, aside from these slight disturbances, he made a rapid and uneventful recovery, and is now an entirely well man, and attending to his avocation as superintendent of a large stock ranch.

Another case, quite as interesting on account of its history, but in no way as grave as the case just referred to: Mr. A., who resides in this city, consulted me about two months ago to obtain my opinion regarding the necessity for an operation upon himself for appendicitis. He gave a history of having had several attacks, some of them quite severe, and the last one, from which he was just recovering, kept him in bed about ten days with a high temperature and rapid pulse. Two physicians had recommended an operation to be done at once, but I found him in so comfortable a condition, with temperature only 99½ and pulse 90, a good appetite, bowels regular and not very tender; I thought it best that he should wait developments, and in case he should suffer from another attack it would be plenty of time to operate. My advice was heeded and for a time it seemed to have been wise counsel. About one month after I had first been consulted I received a telephone message to come at once prepared to operate on Mr. A.

The operation was done as promptly as preparation could be made. Upon opening the abdominal cavity we were shocked, because we were certain from the odor that the intestines were perforated. However, it was found upon examination that it was not a perforated intestine but the broken down condition of the tissues. The cecum was buried in adhesions, and I was obliged to carve my way, so to speak, in order that I might remove the large intestine to examine it. There was no vestige of the appendix remaining. The inflammation in this case did not extend to the small intestines but involved the cecum and ascending colon and a small proportion of the ilium. After thoroughly separating the adhesions and loosening the diseased intestines I flushed the abdomen with a large quantity of sterilized water, drained and packed as in the case above mentioned. The patient recovered so rapidly that it did not seem there had been anything the matter with him. His temperature fell one degree and a half in less than one-half hour, and never got higher than 100 after the operation.

The brief reference to the above cases is quite sufficient in my judgment to illustrate the purpose of this paper, because one could not find graver cases than these two, and yet have such uneventful recoveries. In the case first mentioned, life must have been saved by the operation. The second case, in my judgment, would have gotten up without an operation, and yet it is possible he could not have lived.

No. 220. Paper, by B. E. HADRA, M. D., Galveston, Texas.

[Neither Title nor Abstract furnished.]

—o—

No. 221. "A Last Resort in the Operative Treatment of Hernia," by ROBERT T. MORRIS, M. D., New York City, N. Y.

[Abstract not furnished.]

—o—

No. 222.

WHEN OPERATION IS REFUSED—WHAT THEN?

BY GEO. R. DEAN, M.D.,
Spartanburg, S. C.

The object of this paper is not to throw light upon the subjects referred to, but to obtain the expression of sentiment from such a learned body as the Pan-American Congress.

There are two points to consider in this question—First, shall a doctor withdraw from a patient if she refuses his advice as to an operation. Second. If the doctor remains after he is refused permission to operate, what line of treatment should he adopt on general principles for the various diseases to which women are subject, herein named, taking it for granted that a patient may retain her doctor even though she refuse operation? I have not discussed the ethical side of this subject but have confined my remarks to the second part of the subject.

First as to cancerous growths on womb and appendages. Does operation present the only means of giving relief? This I do not answer but leave it for discussion.

Then fibroma and cystoma are discussed. Here operations are generally, though not universally, advised; certain conditions militate against operation. But when recommended and refused what can be done to mitigate the suffering and discomfort of a patient and prolong her life?

Then pus tubes, ovarian abscess, puerperal sepsis, septic peritonitis and ectopic pregnancy. The desire of the writer is to bring out a full and comprehensive discussion upon the subjects, viz: The results of operation, present and remote. The ratio of mortality from operation and non-interference, the prognosis of those left without operation but kept under skilled hands.

The treatment and expectancy of life.

The result, present and remote, of those who do recover without operation.

No. 223. Paper, by W. E. B. Davis, M. D., Birmingham, Ala.
[Neither Title nor Abstract furnished.]

—o—

No. 224. "Perineo-Vaginal Restoration," by Edward W. Jenks, M. D., Detroit, Mich.
[Abstract not furnished.]

—o—

No. 225. Paper, by W. Gardner, M. D., Montreal, Canada.
[Neither Title nor Abstract furnished.]

—o—

No. 226.

PRESENT STATUS OF OUR KNOWLEDGE OF THE PATHOLOGY OF PELVIC INFLAMMATION, WITH SPECIAL REFERENCE TO THE ANATOMY AND TREATMENT OF PELVIC ABSCESS.

By R. B. Maury, M. D.,
Memphis, Tenn.

The term "pelvic abscess" applied to any collection of pus in the pelvis, no matter what its anatomical relations.

Views of pelvic inflammation ten years ago, compared with accepted doctrines of the present time.

Pelvic cellulitis known to be an acute inflammation, occurring as one of the features of a puerperal septicemia.

It also occurs as a result of the infection of surgical injuries upon the uterus or vagina.

To the extent of producing appreciable exudations it is of infrequent occurrence even in the puerperal inflammations.

Death following septic infection of surgical operations is usually due to peritonitis; cellulitis is seldom found.

The dissecting room proves that pelvic cellulitis to a *minor* extent frequently occurs in association with a *major* peritonitis.

In such cases the cellulitis would be incapable of recognition at the bedside.

Chronic pelvic cellulitis as a distinct pathological condition, believed to be a misnomer, and is of doubtful existence. Clinically, it is impossible of recognition.

Pelvic peritonitis associated with diseased uterine appendages is regarded to-day just as it was taught thirty years ago by Bernutz, the keystone of pelvic pathology in women.

The collections of pus, here to be considered, are those which follow inflammation of the pelvic cellular tissue, and those which result from salpingitis, ovaritis and pelvic peritonitis.

Abscesses of the cellular tissue are rare. Broad ligament abscesses are very infrequent. Lack of scientific accuracy in the anatomical reports of them.

The overwhelming majority of pelvic abscesses are intra-peritoneal.

As long as pelvic cellulitis dominated pelvic pathology all the surgical methods for the evacuation of pus were based upon operations through the vagina, or through the anterior abdominal wall.

Such methods are applicable to a very small number of cases.

Methods of treatment of pelvic abscesses.

(1) Of abscesses extra-peritoneal.

(2) Of intra-peritoneal abscesses.

Abdominal section the natural method of approaching intra-peritoneal abscesses. It offers advantages which no other possesses.

It should be essayed in cases when the exact nature of the abscess is in doubt.

—o—

No. 227. Paper, by JOHN R. HAYNES, M. D., Los Angeles, Cal.

[Neither Title nor Abstract furnished.]

—o—

No. 228. "The Omentum, and the Role it plays in Operative Work upon the Abdomen," by JAMES F. W. ROSS, M. D., Toronto, Canada.

[Abstract not furnished.]

—o—

No. 229.

HYSTERECTOMY. INDICATIONS AND TECHNIQUE.

BY J. M. BALDY, M.D.,

Professor of Gynæcology in the Philadelphia Polyclinic. Surgeon to the Gynecean Hospital.

It is not proposed to discuss in this paper the etiology or symptomatology of the various conditions for which this operation is performed.

It is not always safe in forming conclusions to draw our inspiration from a promiscuous collection of statistics, therefore whatever deductions are drawn will be entirely from the author's personal experience, which has reached the number of seven-seven hysterectomies.

The indications as taught by this experience are absolute and relative. They are:—

(1) Malignant degenerations.

(2) Fibroid tumors.

(3) Pelvic inflammations.

(4) Prolapse.

(5) Inversion.

The indications in malignancy are absolute, both as to the advisability of operation and as to the complete removal of the uterus. However small the number of cases cured may be, yet it is an undisputed fact that a certain proportion regain permanent good health. Should only one or two in a hundred be so fortunate, yet would the operation be justified in view of the absolutely certain end of all without it. The operation is comparatively safe. Twenty-five operations have been performed by the writer for primary cancer or sarcoma of the uterus, and of this number three have died from the operation; all three deaths were due to preventable causes, and with added experience and a more perfect technique would not be likely to occur again.

The indications for surgical treatment of fibroid tumor are relative. Surgical treatment having been once decided upon, hysterectomy is the proper procedure. Ovariotomy is excluded for the reason that it equally renders the patient sterile; it allows the tumor to remain in situ with the added chance of its not producing a cure; it often leaves a uterus diseased in its cavity as well as its walls; it is as difficult as hysterectomy often; and at times is impossible. Hysterectomy as the operation of choice depends upon its mortality. Forty-one fibroid uteri were removed by this means with four deaths. Three of these deaths were from preventable causes, or accidents which would not be likely to occur again.

The indications for pelvic inflammation are relative. Four such operations have been successfully performed: two subsequent to a primary ovariotomy; two primarily. Patients in whom the endometrium is badly diseased, the uterine walls infiltrated, especially with pus corpuscles, and the whole uterus enlarged, are proper subjects for their treatment.

The indications for uterine prolapse are relative, when the ordinary procedures have failed, when the patient is near, or past, the menopause, and when there is the slightest suspicion of malignancy. The operation should be performed with catgut ligatures, the stump stitched into the vaginal opening and subsequent plastic operations performed upon the anterior and posterior vaginal walls. The operation has been performed six times, always with success.

A chronic inverted uterus should be removed wherever a short trial at taxis and elastic pressure has failed. The operation has been performed once successfully.

The methods of performing hysterectomy are abdominal, vaginal and the combined method. The combined method is superfluous and more dangerous than either of the other two alone.

Abdominal hysterectomy is performed by:

(1) Supra-vaginal amputation. { *a.* Treatment of the stump by the extra-peritoneal method. *b.* Dropping the stump.

(2) Extirpation.

Vaginal hysterectomy is performed by:

(1) Clamp operation. { *a.* Single clamps. *b.* Multiple clamps.

(2) Ligature operation.

All cases of prolapse and inversion, all cases of malignancy sufficiently small, and very small fibroid tumors are proper subjects for the vaginal operation.

Fibroid tumors, large malignant uteri, pelvic inflammatory cases, should all be subjected to the abdominal operation.

The writer has performed each operation as follows:

Vaginal hysterectomy.

Single clamps: three, with two deaths.

Multiple clamps: one, with no death.

Catgut ligature: twenty-seven, with one death.

Abdominal hysterectomy.

Extirpation: five, with one death.

Extra-peritoneal treatment of stump: twenty-eight, with two deaths.

Dropping the pedicle: thirteen, with one death.

The vaginal operation performed with catgut ligature and the abdominal operation performed by supra-vaginal amputation and dropping the stump are the procedures of choice.

——o——

No. 230. "Observations on Total Extirpation of the Uterus for Cancer Based upon a Personal Experience with Thirty-two Cases," by CHARLES A. L. REED, M. D., Cincinnati, Ohio.

[Abstract not furnished.]

——o——

No. 231. "Ectopic Pregnancy," by JOSEPH HOFFMAN, M. D., Philadelphia, Pa.

[Abstract not furnished.]

——o——

No. 232. Paper, by E. W. DAVIS, M. D., Philadelphia, Pa.

[Neither Title nor Abstract furnished.]

——o——

No. 223. "After-treatment of Abdominal Section," by L. S. McMURTRY, M. D., Louisville, Ky.

[Abstract not furnished.]

——o——

No. 234.

THE TECHNIQUE OF TOTAL EXTIRPATION OF THE FIBROMATOUS UTERUS.

BY GEORGE M. EDEBOHLS, A. M., M. D.
New York.

Place the patient in the lithotomy position.

Thoroughly disinfect the vagina.

Disinfect the uterine cavity, as far as possible in each individual case, by means of superficial curetting and irrigation with 1-2000 sublimate solution.

Pack the uterine cavity moderately full of sublimate gauze, 1-100.

Pack the vagina *tightly* with sublimate gauze 1-1000.

Make no vaginal incisions; do none of the cutting from below.

Now place the patient in the Trendeleburg posture.

Open the abdomen above the pubis by an incision just large enough to permit of delivery of the entire tumor.

Given a tumor weighing not above four kilogrammes, with healthy tubes and ovaries, proceed as follows:

Eventrate the tumor.

Circumscribe two peritoneal flaps by two transverse incisions of the peritoneum, one on the anterior, the other on the posterior surface of the tumor mass, each incision extending from one broad ligament across to the other. These peritoneal flaps should be large enough to easily cover the defect in the pelvic floor left after removal of the uterus.

Strip the peritoneal flaps from the surface of the uterus, carrying the bladder and ureters forward, out of harm's way, with the anterior flap.

Tie the uterine arteries on either side by a subperitoneal mass ligature of catgut, carried well down to, but not into the vagina. The distention of the vagina by the gauze packing makes this an easy matter.

Tie off the broad ligaments, outside of the tubes and ovaries, by two further catgut ligatures on either side.

Cut out the entire uterus, tubes and ovaries, in one piece, between the ligatures.

Cut short the six ligatures.

Unite the peritoneal flaps by a transverse, running *Lembert* suture of catgut, extending from the stump of one infundibulo-pelvic ligament to that of the other, carefully applied so as to securely close the peritoneal cavity and turn all ligatures down into the vagina.

Close the abdominal wound.

Again place the patient in the lithotomy position.

Remove the gauze packing from the vagina and apply a loose dressing of gauze in such a manner as to drain the supravaginal subperitoneal space.

If the ovaries or tubes present evidences or suspicion of containing infectious material, tie off and remove them the first thing after opening the abdomen.

If the tumor extend above the umbilicus, weighing more than about four kilogrammes, pass a rubber ligature around the cervical part, after stripping back the peritoneal flaps, and amputate the bulk of the tumor. Cauterize the cervical canal with the Pacquelin or a tablet of corrosive sublimate, and remove the cervix in the manner described above.

If multiple fibromata, or intra-ligamentary fibromata, fill the pelvis, make room by enucleating the fibromata most in the way, and proceed as above.

The technique advocated is believed to possess the following advantages:

The danger of infection from the uterus or vagina is entirely avoided or at least minimized.

The uterine arteries are secured with ease and certainty.

The operation is practically bloodless.

The closure of the peritoneum is as perfect as it can be made and no foreign body is left in its cavity.

The after treatment required is practically nil.

—o—

No. 235.

THE INTRA-UTERINE TAMPON.

By Andrew F. Currier, M. D.,
New York.

The vast experience in gynecology which has accumulated particularly during the past fifteen years has educated us to accept measures which would have been regarded as inexcusably rash in pre-antiseptic days. The freedom with which the curette is now used within the uterus is an illustration in point. The usefulness of instruments for the dilatation of the uterus has been generally appreciated only during the era in question, and the same is true concerning the principle of drainage in its application to the same organ. Dilatation, curettage and drainage are the three principal foundation stones upon which intra-uterine treatment may be said to rest. From the propriety of dilating the uterus to that of packing it with a tampon is a logical step. The vaginal tampon is an indirect and often unsatisfactory means of relieving uterine trouble. The intra-uterine tampon goes directly to the source of the trouble and has opened a new field in intra-uterine therapeutics. Sterilized gauze is the material which offers the greatest number of advantages for such a tampon.

In the impregnated and puerperal uterus it may be used :

(1) During the period of gestation.

(2) During parturition.

(3) Post-partum, whether the labor occur at term or prior to it.

In the unimpregnated uterus its use is for—

(1) Exploratory and operative purposes in connection with disease of the uterus and its appendages.

(2) Hemorrhage.

(3) Endometritis.

(4) Stenosis.

(5) Accumulations within the tubes.

—o—

No. 236.

A PLEA FOR THE EARLY DIAGNOSIS AND PROMPT ELECTRICAL TREATMENT OF FIBROID GROWTHS OF THE UTERUS.

By G. Betton Massey, M. D.,
Philadelphia, Pa.

The questions briefly considered in this paper are : the nature and symptoms of the early manifestations of uterine fibrosis and myomatous new growths ; the duties of the

profession in making a prompt diagnosis and instituting early treatment for the condition; and a consideration of the value of the Apostoli methods in these cases.

Conclusions. (1) The early signs of uterine fibrosis are quite similar to those of a number of more common disorders, and are consequently mistaken for them in many instances. Whenever metritis, displacements, or persistent sensations of pain and weight are found, the physician should bear in mind the possibility of the cause being an incipient fibroid development, and if found to be so, he should place the patient at once under treatment.

(2) The most recent views of the etiology of fibrosis indicates that the mode of action of electricity is most likely by a stimulation of the trophic and sorberacient functions of the uterus, rather than by an electrolytic destruction of the growth.

(3) The expectant policy in dealing with fibroids is too prevalent, resulting in many cases losing the decided advantage to be derived from early treatment.

(4) The early diagnosis of fibroid growths has the advantage of placing all cases within the list of those that are amenable to electrical treatment, while delay permits of some becoming unsuitable for it.

(5) All forms of fibrosis and fibroid neoplasms of the uterus are suitable for electrical treatment except those that have undergone cystic changes, or that are accompanied by purulent accumulations in the uterine adnexa.

—o—

No. 237.

THE CO-ORDINATION OF THE MUSCLES CLOSING THE URETHRA, VAGINA AND RECTUM, AND ITS APPLICATION TO THE PRECISE DIAGNOSIS AND SURGICAL TREATMENT OF INJURIES TO THE PELVIC FLOOR.

By A. W. Abbott, M. D.,
Minneapolis, Minn.

That the perineum completes the outer layer of pelvic supports, that it perfects the valvular closure of the vaginal opening, that it performs an important function in copulation and conception, are sufficient reasons for its restoration after rupture.

When the sphincter ani is made to contract voluntarily, the entire levator ani as well as the perineal muscles proper contract at the same time, and can therefore at all times be influenced by the control of the sphincter ani.

To ascertain what muscle or muscles of the perineum are torn, place the patient in the dorsal position, with the perineum exposed; if now the patient alternately contracts and relaxes the sphincter ani, all the other muscles involved contracting and relaxing, as before stated, at the same instant, it will be immediately apparent by touching the normal positions of the various muscles, which ones contract throughout their full extent, and are therefore intact, and as positively, those that are torn, by the total or partial loss of contractile hardening at the point of rupture. Indeed, the exact site of injury may often be made out by sight alone, the sound side drawing up, while the tissues of the injured

side are carried toward the uninjured side instead of counteracting the effect of the latter, as they normally should.

In brief, the principles of repairing a lacerated perineum are, first, to definitely locate the lesion; second, to confine the operation to the injured muscles and fasciae only; third, to place the sutures just as would be done in like injuries in any other part of the body. The results have been certainly gratifying, the perineum not only being restored to its nulliparious form, but what is of more importance, the control is perfect.

—o—

No. 238. "Estudio Clinico Sobre las Heridas Penetrantes del Abdomen i Pecho," by Dr. Juan Manual Escalana, Caracas, Venezuela.

[Abstract not furnished.]

—o—

No. 239.

CAVERNOUS ANGEIOMA OF THE UTERUS REMOVED PER HYSTERECTOMIAM VAGINALIS, WITH REMARKS UPON THE METHOD OF DOING VAGINAL HYSTERECTOMY.

(With specimen presented.)

By H. J. Boldt, M. D.,
New York.

The specimen is presented because it is unique; it was obtained from a woman thirty-seven years old, who had been troubled with irregular uterine hemorrhages for nearly a year, and despite of all treatment adopted, had gradually become worse; several curettings with a sharp curette and subsequent local applications had but temporary effect. The products of curetting only showed by perplastic endometritis under the microscope, but notwithstanding that no evidence of malignant disease could be found, extirpation of the uterus was resorted to in preference to castration, because of its equal safety, and its more certain cure.

For the histological details, I must refer to the original article, and here take the opportunity to again express my opinion on a practical issue, namely, the proper way to do the operation. For explicit details I refer to my article on vaginal hysterectomy for cancer of the uterus in the Transactions of the American Gynecological Society for 1892.

No fixed rule can be laid down, each case must be managed according to the circumstances presenting themselves at the time. We will, however, take an ordinary case, such as the one from whom the uterus presented was removed. It is immaterial whether it be malignant or non-malignant disease for which the operation is done, as far as the one feature is concerned, viz: the closing of the wound completely and to have the broad ligament stumps entirely extra-peritoneal. The portio having been grasped by vulsella and the uterus pulled down as much as possible, a transverse incision is made anteriorly and the

bladder stripped off the cervix; if it cannot be completely done yet, only so much is separated as is convenient. The same course is pursued posteriorly, and the cul-de-sac of Douglas is opened. The peritoneum is now attached to the vaginal mucosa by a continuous cat-gut suture. The base of the parametria are next ligated and cut on either side. Should the bladder not have already been entirely separated, it will be found to be easily accomplished after severance of the base of the parametria. The broad ligaments are now ligated in sections and cut as we proceed, taking care that the needle enters the vaginal mucosa, and after taking in its grasp as much of the broad ligament as is desired, it emerges again in the vaginal mucosa. The index-finger of either hand is used as a guide, by way of the posterior opening. After tying the ligature, the ligated portion of the broad ligament is cut. The adnexa are brought down and ligated off if possible in the same manner. It is obvious that by following this technique of introducing sutures that our stumps are practically already secured in the vagina. The terminal ends of the stumps are now grasped with bullet forceps and an assistant makes traction sufficient to bring them completely into the vagina, when another suture is passed on the same principle as the previous ones, enveloping all the stumps. This done on either side, the centre gap can now be closed completely, after removing the sponge or gauze tampon, from the pelvic cavity, if one has been inserted to prevent the intestines from prolapsing during operation.

Full curved sharp needles of suitable size are used, and nothing but cat-gut for ligatures. Silk delays convalescence too much and it cannot be made more aseptic nor tied more securely than animal ligature. The needle holder is also preferable without catch or spring. There is no necessity for drainage in ordinary cases, so that the practice of putting a strip of gauze into the pelvic cavity for this purpose in every instance, had better be abandoned. It is only desirable when extensive perimetrial adhesions are present. In malignant disease the operation must be done as far away as possible from the diseased structure, and sufficient vagina must also be resected if the portio is the seat of the neoplasm. Clamps should never be used if ligatures are applicable.

The operation should be done with the patient in the lithotomy position, and not in the side position.

—o—

No. 240.

THE DORSAL DECUBITUS AFTER CONFINEMENTS AND MISCARRIAGES IS THE COMMONEST CAUSE OF RETROVERSION WITH FIXATION.

By A. Lapthorne Smith, M. D.,
Montreal, Canada.

(1) After confinement or miscarriage the uterus is unusually heavy, and is therefore especially subject to the law of gravitation.

(2) During the process of enlargement during pregnancy the ligaments, especially the round ones, become lengthened and probably weakened because they are not used, the uterus being held in position by other means at that time.

(3) By allowing the patient to remain on her back for ten days after delivery or miscarriage, the heavy and unsupported fundus gravitates onto the spine, and as it involutes it gradually sinks into the hollow of the sacrum, where it receives the intra-abdominal pressure on its anterior surface, and where it obstructs the passage of the rectum like a valve; the more the patient strains the tighter it closes the canal.

(4) The uterus is then in the position of a bottle with the mouth up, and the lochial discharge accumulates in it; if germs have been introduced the conditions for fermentation are very favorable. The bottle, however, has two holes in it, through which the fermenting liquid leaks into the cavity of the pelvic peritoneum, setting up an attack of local peritonitis. If the patient recovers from this, as she usually does, the ovaries, tubes and fundus uteri will be found firmly glued together in Douglas' cul-de-sac, from which no manipulation short of abdominal section will generally remove them.

(5) Such a condition of the uterus and appendages generally renders the woman a life-long sufferer.

(6) This condition is absolutely preventable by keeping the patient on her face or partly on her side after miscarriage and confinement, and by allowing her to sit up on a chamber, leaning forward when possible, when evacuating the bladder and bowels.

The dorsal decubitus, while having this great objection, has nothing to recommend it. There is no foundation for the dread that hemorrhage will come on if the patient turns on her side or face.

—o—

No. 242. "Observaciones Sobre un caso de Prenez extra-uterina (Tubaria Derecha) Operada en el Hospital de San Salvador por el Dr. Jose Antonio Delgado," by Dr. J. Antonio Delgado, Guatemala City, Guatemala.

[Abstract not furnished.]

—o—

No. 243. "Notes Pour L'Histoire Des Fibro Miomes Uterine," by Dr. Nicolas San Juan, City of Mexico, Mexico.

[Abstract not furnished.]

—o—

No. 244.

THE RESULTS OF VAGINAL HYSTERECTOMY.

By Andrew J. McCosh, M. D.,

Attending Surgeon to Presbyterian Hospital, New York; Professor of Surgery in New York Polyclinic.

The object of the paper is to record the personal results of the author. No new methods or instruments are proposed. All the cases of vaginal hysterectomy operated on by the author are reported and classed as (1) for cancer, (2) for prolapse.

First, for cancer. Ligatures are preferred, but clamps are used without hesitation provided they can be applied with greater ease or safety. Silk has been employed for ligatures. All specimens were examined microscopically.

Thirteen operations are reported. No deaths. There are in perfect health, without sign of return,

At end of 5 years	. . . . .	1 patient.
" " " 4 "	. . . . .	1 "
" " " 2 "	. . . . .	1 "
" " " 1½ "	. . . . .	1 "
" " " 1 "	. . . . .	2 patients.
" " " 4 months	. . . . .	2 "

There have died from return of the disease

At end of 33 months	. . . . .	1 patient.
" " " 7 "	. . . . .	1 "

There are still alive, but with return of the cancer—

At end of 3 years	. . . . .	1 patient.
" " " 1 "	. . . . .	1 "

Disappeared from observation one patient.

Second, for prolapsus uteri. For ordinary cases of prolapse hysterectomy is unjustifiable. Milder measures are sufficient. In certain cases, however, of complete prolapse of a very large uterus and of an enormously hypertrophied vagina the ordinary plastic operations (perineorrhaphy and colporrhaphy) are apt to be failures as a means of permanent support. In such cases hysterectomy is a justifiable operation.

Report of five cases, (four of the author's) no deaths.

Complete success	. . . . .	1 case.
Partial success	. . . . .	2 cases.
Failure	. . . . .	2 cases.

It is doubtful if we can expect perfectly satisfactory results from this operation even when followed by a perineorrhaphy.

The operation is rather tedious and bloody.

—o—

No. 245. "Apuntamientos Para el Estudio Comparativo de la Pelvis Mexicana y Europea y Consecuencias Practicas ague da Lugar la Especial Conformacion de la Primera," by Dr. Manuel Gutierrez y Tomas Noriega, City of Mexico, Mexico.

[Abstract not furnished.]

—o—

No. 247. "Analysis and Deduction from my first one hundred and ten Laparotomies for Appendicitis, with Report of Experimental Investigation," by J. B. Murphy, M. D., Chicago, Ill.

[Abstract not furnished.]

No. 248. "A Study based upon one hundred Consecutive Cases of Removal of Diseased Uterine Appendages with two Deaths," by R. Stanbury Sutton, M. D., Allegheny, Pa.
[Abstract not furnished.]

No. 249.

—o—

DOES THE CATAMENIA INVARIABLY APPEAR EARLIER IN HOT THAN IN COLD CLIMATES?

By J. H. O'Donnell, M. D.,
Winnipeg, Manitoba, Canada.

I have various reasons for selecting this subject, foremost among these is the desire to place before you some of the conclusions I have drawn from an experience of over 1100 cases that have come under my own notice during twenty-three years' practice in the northwestern portion of the continent. The subject is too wide to allow of its compression into a brief paper. I shall therefore select those points which seem to have an important bearing upon, and in many respects opposed to, existing theories as to the age menstruation appears in northern latitudes.

The text-books tell us that the average age at which the first menstruation occurs has been the object of many statistical researches, that it is influenced by mode of life, race, climate and other conditions, but most observers agree as to climate, that the outset of menstruation is earlier in hot than in temperate regions, and in temperate than in cold.

I shall endeavor to show that such is not an invariable rule, at least in so far as my observation extends, and a few words on the early history of the location where my collections have been made will make the figures more rapidly understood. The place is situate at the junction of the Red and Assiniboine Rivers, at the fiftieth parallel of latitude, and was settled about the beginning of the century, now the Province of Manitoba.

There were few white women, and the servants of the Hudson Bay Company and other settlers took Indian women for wives, and the result, a large population of "metis or half-caste, pure, and many others more or less intimately co-mixed" with aboriginal blood. The white people were French, Scotch, English and Irish, and within the past ten or fifteen years the Icelander. The following table which I have prepared will show the percentage of persons of the different races who have menstruated between ten and thirteen years of age.

Nationality.	*Number.*	*Menst'd.*	*Per Cent.*
French	150	81	54.00
Scotch	75	45	60.00
English	53	19	35.84
Irish	26	10	38.46
French Half-breeds	300	180	60.00
Scotch "	210	102	48.57
English "	116	45	38.79
Irish "	60	20	33.33
Icelanders	120	64	53.33
Total,	1110	566	50.99

I hope to be able to show at the congress the history of a number who have borne children at an age hitherto not thought possible in a northern climate, as well as other climatic affects not yet written upon so far as I know.

——o——

No. 250. "Curs Radical de las Hernias," by Dr. Luis C. Maglioni, Buenos Ayres, Argentine Republic.

[Abstract not furnished.]

——o——

No. 250 *a*.

THE AFTER-TREATMENT OF CŒLIOTOMY CASES WITH ESPECIAL REFERENCE TO SHOCK AND SEPTIC PERITONITIS.

By Eugene Boise, M. D.,
Gynecologist to St. Mark's Hospital; Fellow of the American Association of Obstetrician and Gynecologists.
Grand Rapids, Mich.

There are three post-operative conditions which call for prompt intelligent action: Secondary hemorrhage; shock, and septic peritonitis.

Shock is some form of paresis of the sympathetic nervous system. I believe that it is primarily hyper-irritation of the entire sympathetic system.

The primary condition in shock—severe stimulation of the entire sympathetic system, with consequent cardiac and arterial spasm. The second stage of shock may be a so-called paresis by reason of the exhaustion of the heart. The remedies, therefore, would be for the first stage, free hypodermics of codine, nitrite of amyl and nitro-glycerine, with copious injections of hot water into the colon.

For the second stage, strychnia, digitalis, and cardiac stimulants, with, if necessary, intra-venous transfusion of hot saline solution.

All operators have an instinctive feeling that prevention of sepsis prevents peritonitis, and, therefore, the efforts are directed to prevent the entrance of septic material into the cavity—or if the material removed is of septic nature, to cleanse the cavity as thoroughly as possible and to remove the fluid which would otherwise invite infection. The two post-operative measures relied on for this purpose are drainage and free catharsis. Drainage may be accomplished by tube or gauze, and if used must be thorough and cleanly.

In the production of catharsis several factors are to be kept in mind. First, after every cœliotomy there is a flow of serum from the blood vessels into the peritoneal cavity, thus depleting the vessels. Second, during the first few hours after a cœliotomy of any considerable severity there is more or less paroxysmal abdominal pain, sometimes very severe. This is caused by irregular and spasmodic peristalsis, the muscular coat of the intestines contracting unequally, and it may be tonically obstructing the bowels. Third, by reason of the withholding of fluids, the intra-peritoneal serous effusion, and, it may be, profuse perspiration, the blood vessels of the intestines are greatly depleted. For the

easy production of catharsis the current should have ceased to flow from the blood vessels toward the peritoneal cavity. The spasmodic contraction of the intestines should have been overcome, and the blood vessels should have been replenished.

The serous effusion will cease after a few hours. The spasmodic contraction of the intestinal muscles should be overcome by a hypodermic injection of a free dose of codeine, and the blood vessels should be filled by means of hot water thrown into the colon. Then catharsis may be produced with comparative ease.

——o——

No. 250*b*.

HABITS OF POSTURE A CAUSE OF DEFORMITY AND DISPLACEMENT OF THE UTERUS.

By Eliza M. Mosher, M. D.,
Brooklyn, N. Y.

To present the subject clearly it will be necessary to glance at the body from the standpoint of its mechanics. * * * What is the normal position of the pelvis? Evidently it is that position in which the uterus balances evenly upon the supports, but with its fundus so placed that it would drop forward rather than backward if suddenly deprived of support.

Results of measurements with the author's "Pelvic Obliquimeter."

The influence upon the uterus of habits of posture which shorten the distance between the sternum and pubis. (A common posture among school girls.)

Of habits which shorten the lateral line of the trunk on one side (elevation of hip and drooping of shoulder) by habitually standing on one and the same leg, sitting on one ischium, etc.

The effect upon the position of the uterus of sitting and standing with the pelvic brim approaching the horizontal:—the oblique.

Causes which tend to lessen the normal obliquity of the pelvis. * * * Importance of early and frequent measurement of pelvic obliquity. * * * Suggestions in reference to the best methods of correcting habits of posture which tend to produce deformities and displacements.

Note:—A method of measuring accurately the obliquity of the pelvis will be shown.

Correct and incorrect postures will be shown by means of the author's "Postura Model," and by plates.

SECTION ON THERAPEUTICS.

HONORARY PRESIDENTS:

Dr. I. E. Atkinson, Baltimore; Dr. A. D. Blackader, Montreal; Dr. Simon Baruch, New York; Dr. Norman Bridge, Los Angeles; Dr. W. E. Casselberry, Chicago; Dr. M. C. Caldwell, Chicago; Dr. Charles Cary, Buffalo; Dr. F. D. McDaniel, Mobile; Dr. Manuel Dominguez, City of Mexico, Mexico; Dr. Antonio A. Ramirez F. Fontecha, Tegucigalpa, Honduras; Dr. J. Milton Bigelow; Albany; Dr. J. H. Kimball, Denver; Dr. John A. Larrabee, Louisville; Dr. Justin Steer, St. Louis; Dr. A. B. Miles, New Orleans; Dr. Francisco R. Martinez, Santiago, Chile; Dr. Ramón Mazaeredo, Cienfuegos, Cuba; Dr. Geo. L. Peabody, New York; Dr. J. C. Mackenzie, Cincinnati; Dr. A. D. Rockwell, New York; Dr. Tomás Salazer, Lima, Peru; Dr. A. A. Smith, New York; Dr. James Tyson, Philadelphia; Dr. H. C. Wood, Phiiadelphia; Dr. James T. Whittaker, Cincinnati; Dr. James C. Wilson, Philadelphia.

EXECUTIVE PRESIDENT:

Dr. Hobart Amory Hare, 222 S. 15th St., Philadelphia. Pa.

SECRETARIES:

Dr. Edward Randall (English-Speaking), Galveston, Texas.

Dr. David Cerna (Spanish-Speaking), Galveston, Texas.

Dr. Del Arca [Paraguay 840]	Buenos Aires	Argentine Republic.
Dr. Manuel B. Mariaca	La Paz	Bolivia.
Dr. Alvaro Alberto da Silva	Rio de Janeiro	U. S. of Brazil.
Dr. J. L. Davidson	Toronto	Canada.
Dr. Manuel Plata Azuero	Guaduas	Republic of Colombia.
Dr. Domingo L. Madan [Contreras 13]	Matanzas	Cuba.
Dr. J. Luis Estrada	Guatemala City	Guatemala.
Dr F. L. Miner	Honolulu	Hawaii.
Dr. Ramón Midence	Tegucigalpa	Honduras.
Dr. Fernando Altamirano [Instituto Médico]	City of Mexico	Mexico.
Dr. Alvarez	Granada	Nicaragua.
Dr. Americo Ricaldoni	Montevideo	Uruguay.
Dr. Vicente G. Guánchez	Caracas	Venezuela.

SECTION OF THERAPEUTICS.

No. 251. Paper, by EDWARD RANDALL, M. D., Galveston, Texas.

[Neither Title nor Abstract furnished.]

—o—

No. 252.

THE TREATMENT OF SCARLET FEVER BY CHLORAL HYDRATE.

BY JAMES C. WILSON, M. D.,
Philadelphia.

Previous methods of treatment unsatisfactory; a purely expectant method, justifiable only in the mildest forms of the disease; specific methods have led to disappointment. The general drift of opinion is at present in the direction of an expectant—symptomatic plan, a plan based largely upon knowledge of the general pathology of the disease and its liability to special complications.

Under this plan of treatment, almost all recent authorities refer to the use of chloral hydrate for the control of the nervous symptoms. Over this group of symptoms, partly the result of the infectious toxæmia, partly the result of the tegumentary efflorescence, chloral unquestionably exercises a powerful influence.

Given thus continuously throughout the attack, in appropriate doses, it is also to a high degree diuretic. It destroys low organisms and inhibits the decomposition to which they give rise. It is, therefore, to some extent, an antiseptic.

Chloral as such is excreted in the urine so long as the urine remains acid. It tends to diminish blood pressure and to lower temperature.

Theoretically, then, chloral fulfills in scarlet fever a larger number of causal and symptomatic indications than any other single drug.

Practically, the writer of this paper, has found the treatment of scarlet fever by chloral to yield more satisfactory results in the course of individual cases and in the reduction of the mortality, than any treatment previously used. He has now employed chloral in accordance with the following plan in the management of all cases of scarlet fever for a period covering epidemics and cases of every grade of intensity, and extending over ten years, with the most satisfactory results as compared with any other method of treatment known to him:

So soon as the patient is suspected or known to be developing scarlatina, a laxative dose of calomel, proportionate to the age and general condition, is administered. Shortly thereafter chloral is given, in moderate doses, at intervals of two or three hours, or longer, throughout the attack. The dose varies with the age of the child; the frequency of its administration depends largely upon its effect. To infants of two or three years, a dose of from one to two grains may

be given, the dosage being gradually increased with older children; that for adolescents reaching five grains. The tranquilizing and sleep-producing effects of the drug are in most instances promptly realized, the patient falling into a condition of quietude or somnolence, in striking contrast to the discomfort and jactitation which are so distressing in the well-developed disease.

The repetition of the dose should not be more frequent than is necessary to maintain this condition of quietude, a condition from which the patient may be easily aroused, and into which he quickly relapses when disturbed. It is neither necessary nor desirable to push the drug to the establishment of a deeper sleep. Profound narcotism is, of course, to be avoided. The patient may thus be kept in a condition of light repose throughout the whole duration of the fever. By this means, not only is there obtained relief from the restlessness and distress of the active period of the disease, but much wear and tear of the nervous system and some exhaustion from muscular effort are prevented. Delirium is controlled; the itching and burning of the skin due to the eruption are allayed; in a word, the greater number of the distressing symptoms of the disease are favorably influenced by the cautious and prolonged administration of chloral hydrate in efficient doses.

As a rule, the drug is easy of administration and well borne by the stomach. I have found its acrid after-taste best masked by the administration in Aubergier's syrup of lactucarium diluted, thus:

℞ Chloralis . . . . . gr. xxx.
Syrup. lactucarii (Aubergier) . . . . . } aa ℥ jss.—M.
Aqua . . . . . }
Sig. A teaspoonful in iced water every two, three or four hours.

The administration of nourishment immediately after the medicine is desirable. The sleep-producing properties of the drug manifest themselves rapidly, but are not prolonged; therefore, its repetition at intervals of two or three hours is called for.

Systematic inunctions of goose-grease or washed lard are practiced at intervals of four or six hours throughout the attack. The throat and nasal passages are sprayed with some antiseptic detergent fluid at regular intervals, varying according to the degree of disturbance of the naso-pharyngeal mucous membrane.

In the way of medicines chloral only is employed. As a stimulant alcohol is given rather freely in the form of milk punch, wine whey, champagne, etc. Except in response to special indications no other drugs are administered until the defervescence is complete. After this period small doses of quinine and iron in some appropriate form are employed.

—o—

No. 253.

A PLEA FOR PHYSIOLOGICAL REMEDIES.

By Simon Baruch, M. D.,
New York City.

Physiological remedies may be defined as those agents which contribute to the maintenance of health. It is proposed to show the value of methodical applications, and their superiority to medicinal agents. Antagonism to the latter is not intended. The present status of therapeutics is unsatisfactory; we have only one positive medicinal curative agent—quinine.

Medicinal agents are symplematic; they often are injurious, because they hide the real essence of disease and give us a false sense of security. *Nil nocere* should be our aim.

The chief direction of therapeutic effort is in the following of the natural tendencies of disease. In acute disease, rest is as plainly the chief factor of cure as it is in the more patent traumatic conditions. In chronic conditions a judicious alternation of rest and exercise is more valuable.

Typhoid fever may be offered as an illustration of the effect of medicinal as contrasted with physiological remedies. It is characterized by depreciation of nerve centres and consequent enfeeblement of all organs dependent upon the latter. The modern physician tries to conserve vital forces; the expectant plan succeeded the spoliative. High temperature, brought permanently forward by Liebermaster, as the chief lethal agent is proven secondary, since we have positive antithermics. It is now proven that not to his (medicinal) quinine but to his (physiological) baths was due his success. The coal tar antipyretics must go just as veratrum went, and as internal antiseptics will go. Absolute reduction of pulse and temperature by veratrum and antipyrine, have not only failed, but are proven dangerous.

We must depend in acute depressing diseases entirely on the vis medicatrix, which is aided by the physiological remedies if crippled by medicinal remedies. While air, rest and diet are well applied, the various methods of bathing are still a terra incognita to many who either satisfy themselves with some kind of sponging or adopt the other extreme of using it severely and injudiciously.

The Brand method has proved the most successful treatment; hence, only the closest approximations to it will produce similar results. The rationale of cold bathing is simple, it is a stimulus conveyed to the nerve centres from the cutaneous sensory nerve endings, and reflected upon all the vital organs, and it is followed by moderate reduction of temperature. All the manifestations of disease are favorably influenced, because its aim is to imitate and approach the normal standard.

This illustration may be applied to other acute diseases, to show that while medicinal remedies, though agreeable, tend to cripple the vital forces, physiological remedies, though unpleasant, tend to sustain them.

This difference may be illustrated in chronic diseases. In the latter we are not forced, as in the acute, to remove the patient from the etiological factors. Hence, medicinal agents are more depended on than in the acute. Chlorosis may be cited as an example, because curable. Removal from unfavorable environments, a judicious diet, exercise, rest, fresh air and certain baths accomplish quickly what prolonged administrations of iron fail to do. Other examples may be brought forward to demonstrate that physiological remedies, though much neglected, are our most powerful weapons; they should be studied and applied with the same care which is devoted to medicines. Hasty judgment must be avoided, so that a firm basis for a sound therapeutic structure may be built.

With this view attention requires to be called to water, *as perhaps the most active* "physiological remedy." Its use is now taught in many of our schools in acute diseases, but its great value in many chronic diseases is still unappreciated in America. This is not the case in Europe; for in Italy the talented Seminola; in Germany, Ziemnessen and Eib and Nothnagel; in France, Dryrodin, Braumcity and Charcot, have given a powerful impetus to hydrotherapy by their own successes. In this country Draper and Peterson are teaching the methodical use of baths in chronic diseases. In the Montefiore Home for Chronic Invalids, of New York, hydrotherapy has demonstrated its value in intractable chronic diseases; we need no longer depend upon the statements of empirics on this subject.

Water fulfills every demand required of a remedy. Its action is explicable on rational principles; its effect may be accurately modified to suit individual conditions and its clinical results are undeniable. If used in conjunction with other physiological remedies, its powers for good are readily ascertained.

I plead for a more thorough study and application of water as a remedy in acute and chronic diseases, because it is the least understood of all physiological remedies.

—o—

No. 254.

TREATMENT OF CHRONIC GASTRIC CATARRH AND ALLIED CONDITIONS OF LOWERED HYDROCHLORIC ACIDITY.

By D. D. Stewart, M. D.,
Clinical Lecturer on Medicine in the Jefferson Medical College, Philadelphia.

The paper deals with the measured effects of certain therapeutic agents, such as lavage, strychnia, and intra-gastric electricity; hydrochloric acid and other digestive agents, upon the secretory and motor functions of the stomach, but especially the secretory, in several cases of chronic gastric catarrh in which hydrochloric acidity was originally absent. Concise histories of these cases are cited and the general and special therapeusis, measured by frequent examinations of the gastric contents, employed in cases of subacidity, are detailed.

—o—

No. 255.

THE PHYSIOLOGICAL ACTIONS OF ALCOHOL.

By David Cerna, M. D., Ph. D.,
Galveston, Texas.

Conclusions.—1. Alcohol in small amounts excites, and in large doses depresses the peripheral and sensory nerves. 2. Excessive quantities cause degeneration of the axis-cylinder of nerve-fibres. 3. Reflex action is at first increased, and afterwards diminished under the action of alcohol. 4. In small amounts the drug stimulates the cerebral functions, afterwards depressing, and finally abolishing them. 5. Alcohol causes lack of co-ordination by depressing both the brain and the spinal cord. 6. In toxic doses alcohol produces hyperæmia of both brain and spinal cord, especially of the lumbar enlargement of the latter. 7. Small doses of alcohol produce increased rapidity of the cardiac beat; large amounts a depression of the same. In either case the effect is brought about mainly through a direct cardiac action. 8. The drug in small quantities causes a rise of the arterial pressure by a direct action upon the heart; in large amounts it depresses the pressure similarly through a cardiac influence. 9. In large doses alcohol enhances coagulation of the blood; in toxic quantities it destroys the ozonizing power of this fluid causing a separation of the hæmoglobin from the corpuscles. 10. Alcohol has little or no effect on the respiratory function. In large amounts it produces a depression of both depth and rate of the respiration through a direct action on the centres in the medulla oblongata. 11. The drug kills by failure of the respiration. 12. On the elimination of carbon dioxide alcohol exercises a varying action, sometimes increasing,

sometimes decreasing such elimination. 13. The action of alcohol on the amount of oxygen absorbed also varies, and may be said to be practically unknown. 14. The drug lessens the excretion of tissue-waste, both in health and disease. 15. In small amounts alcohol increases the bodily temperature; in large doses it diminishes the same. The fall of bodily temperature is due mainly to an excess of heat dissipation caused by the drug. 16. Alcohol has a decided antipyretic action. 17. In moderate amounts alcohol aids the digestive processes. 18. Alcohol exercises a varying action on the amount of urine secreted; but it probably increases the activity of the kidneys. 19. Alcohol is mainly burnt up in the system. When ingested in excessive quantities it is eliminated by the breath, the kidneys and the intestines. 20. Alcohol is a conservator of tissue, a generator of vital force; and may, therefore, be considered as a food.

GALVESTON, June 22, 1893.

——o——

No. 256. "The Treatment of Neurasthenia with Special Reference to the Best Cure," by F. X. DERCUM, M. D., Philadelphia, Pa.

[Abstract.]

——o——

No. 257.

THE ADVANTAGES OF AMORPHOUS PHOSPHORUS OVER THE OFFICIAL FORM.

BY E. Q. THORNTON, M. D.,
Demonstrator of Therapeutics, Jefferson Medical College, Philadelphia, Pa.

The investigations of Wegner, Bradley, Broadbent, Thompson and others should leave little doubt as to the value of phosphorus as a stimulant to bone growth, and in the treatment of disorders, due to exhaustion or wasting of the nervous tissues. The remedy while undoubtedly possessing powers so potent for good, has the great disadvantage of not being entirely safe, as disorders of digestion, nephritis and fatty degeneration are not infrequently attributed to its administration. On account of these untoward effects, many authors have wisely insisted upon the utmost precaution in its use. As is well known, the form of phosphorus exclusively employed in medicine is the vitreous variety, from which both of the official preparations are made. Both of these preparations are open to the objections named above, and on account of the readiness of phosphorus to undergo change when exposed to the air, the pills are necessarily made by a complicated process which renders their extemporaneous manufacture difficult. As to phosphorated oil the other official preparation, its taste is extremely nauseous as may be inferred from its combination (phosphorus, ether and oil). It is on account of these disadvantages of the vitreous phosphorus I am led to suggest the employment of the

amorphous or red variety. The amorphous phosphorus is made by heating the vitreous variety to 250° C. in the absence of air, and possesses the following advantages over the official variety: it does not readily undergo change at ordinary temperature, is almost entirely without taste or odor, therefore, it can readily be made into pills at a moment's notice; it is free from irritant or caustic effect, consequently it is far less liable to give rise to irritation or inflammation of the gastro-intestinal and genito-urinary tract, but its greatest advantage lies in the fact that it is non-toxic, and therefore far safer.

That it has the same physiological effect as ordinary phosphorus seems to be proven beyond doubt by Kelly, who, while experimenting upon himself to determine if it was toxic, experienced the full physiological effects of vitreous phosphorus. The following brief extracts are made from Kelly's essay, which has never been published:

Experiment No. 1.

For the first three days one-tenth grain amorphous phosphorus was taken every two hours, nine doses being taken each day. On the fourth day each dose was increased to two-tenths grains, and from the tenth until the twenty-fifth day three-tenth grains every two hours, nine doses a day being taken.

Effect. Mental excitement, headache, vertigo, priapism, nocturnal emissions of semen, followed, about the twentieth day, by nervous exhaustion. Return to his normal, healthy condition in about two weeks after discontinuing the drug.

Experiment No. 2.

About two weeks after completing experiment No. 1, he again began taking amorphous phosphorus in doses of one one-hundredth grains, increased on the fifth day to two one-hundredth, and on the tenth day to four-one hundredth grains, nine doses being taken each day.

Priapism and noctural seminal emissions were among the most pronounced effects. The drug was discontinued on the seventeenth day, and he soon returned to his normal condition.

Experiment No. 3.

About six weeks after completing experiment No. 2, he took at a single dose twenty grains of amorphous phosphorus. The physiological effects came on promptly. Priapism, vertigo, nausea, followed by muscular tremors, cold, clammy skin, great exhaustion and seminal emissions while asleep were the most pronounced effects. For some weeks he was in a state of nervous exhaustion, from which he gradually returned to his normal condition. He is now in good health and shows no ill effect of this rather vigorous medication.

Reese publishes a case in which thirty grains of amorphous phosphorus was taken, by a young woman, with suicidal intent, no toxic symptoms having been manifested.

My own experiments upon animals are in accord with those who assert that the substance in large quantities is non-toxic. My investigations as to the effect of long continued doses is as yet incomplete.

These records would seem to indicate that amorphous phosphorus, while having the same physiological action of the vitreous variety, is to be preferred as it is much easier to administer, less irritating, and above all is a far safer remedy.

No. 258.

THE USE OF NITRO-GLYCERINE IN ARTERIO-SCLEROSIS.

By Thomas G. Ashton, M. D.,

Demonstrator of Clinical Medicine in the Jefferson Medical College and Chief of the Out-Patient Medical Department in the Jefferson Medical College Hospital.

To appreciate the reasons advanced for the use of nitro-glycerine in arterio-sclerosis it is necessary to have a clear understanding of the lesion of the disease and its mode of progress.

Thoma places the origin of the lesion in the media which, from some unknown cause, has lost its elasticity. Resulting from this loss of elasticity the artery dilates and the blood stream flows more slowly than normal. This produces a hyperæmia of the vasa vasorum and a new growth of connective tissue in the intima, the media and adventitia subsequently sharing in the morbid process. So soon as this new growth, in any situation, reaches such dimensions that the normal rapidity of the blood-stream is re-established, these changes cease.

From these observations Thoma deduces the following law:—

A slowing of the blood-current in an artery that is not at once and completely counteracted by a proportionate contraction of the media, leads to a new growth of connective tissue in the intima which lessens the lumen of the affected vessel and thus restores the normal swiftness of the blood-current more or less completely.

These changes in the blood-vessel cause a thickening of its wall with narrowing both of its lumen and its opening at its point of departure from the main vessel. Consequently the various organs and tissues, including the arteries themselves, receive an amount of blood insufficient for their nutrition.

Upon this fact is based the usefulness of nitro-glycerine in arterio-sclerosis. This drug, acting upon either of the muscular walls of the arterioles, or upon the vaso-motor ganglia in or near them, causes a dilitation of the arterioles (Brunton). Thus do we have not only a lessening of the arterial tension, which is such a constant accompaniment of arterio-sclerosis, but the tissues generally are made to receive a larger quantity of arterial blood; this increases their nutrition and tends to prevent the secondary degenerations dependent upon the lessening of the blood supply to the tissues which is characteristic of the disease. Therefore, such cerebral symptoms as vertigo, headache, or impairment of memory, which result from insufficient blood-supply to the brain, disappear under the use of nitro-glycerine. By lessening arterial tension and by removing the inhibition of the vagus from the heart (Bartholow), the hypertrophy of that organ is modified. So also by its action upon the vessels renal changes are often arrested and these organs brought back to a fair condition of health.

As there is a wide difference in individual susceptibility to the action of nitro-glycerine it is well to begin with 1-100 of a grain, gradually increasing this until the physiological effects are produced and maintained.

The effects of the drug are transient, being observed for less than half an hour upon the sphygmogram, and the interval between the doses, therefore, should not be more than two or three hours.

Nitro-glycerine tends to arrest the oxygen-carrying function of the red blood-corpuscle, and it is therefore important not to give it in doses larger than necessary to produce the desired effects; and during long-continued courses of the drug to interpose frequent periods of abstinence from its use.

Arterio-sclerosis is a progressive disease and it is not claimed, therefore, that nitro-glycerine will effect a cure. It is claimed for the drug, however, that it will retard the progress of the affection and alleviate many of its most distressing and serious manifestations.

——o——

No. 259.

VENESECTION IN THE TREATMENT OF ENGORGEMENT AND DILATATION OF THE RIGHT SIDE OF THE HEART.

By I. E. Atkinson, M. D.,
Baltimore, Md.

The object of this short paper is to insist upon the remarkable therapeutic value of general blood-letting in the dangerous engorgement and dilatation of the right side of the heart that has its origin in obstruction to the onward passage of blood through the pulmonary circulation and left side of the heart, whether arising from emphysema, mitral stenoses or insufficiency or otherwise. Though venesection has long and often been advocated and practiced as the most efficient remedy we have with which to combat this frequent morbid condition, it has failed to receive the general recognition and adoption it deserves. A brief description of the pathological sequence and of its symptomatology is given. The method and degree of blood-letting necessary to secure the required mechanical relief is described in abstract and an illustrative case showing the life-saving character of the measure is related.

——o——

No. 262. Formal Address, by Hobart A. Hare, M. D., Executive President, Philadelphia, Pa.

——o——

No. 263.

THE PHILOSOPHY OF THERAPEUTICS.

By L. B. Anderson, M. D.,
Norfolk, Va.

The philosophical and scientific application of remedial agencies to the relief of suffering humanity involves a comprehensive view of the mental and physical constitution of the patient, as well as an accurate acquaintance with the vital functions, their relationship to each other, and the indications of their aberration from a normal, healthy condition. On

this foundation must rest, and from it must spring, every indication for the use of remedial agents, whether for the restoration of impaired functions or the removal of organic derangement.

IMPORTANCE AND DIFFICULTIES.

First.—As health is an expression of the harmony and unity of the vital functions, so disease is but a suspension or aberration of those functions. The phases of functional derangement are often so obscure as to render it difficult to decide whether the trouble is local or reflex, specific or sympathetic. It is, also, often difficult to decide whether the remedial effect of an agent has been exerted upon the organ ostensibly affected, or reflectively through some other organ or organs.

Second.—Another difficulty which confronts the therapeutist is the want of reliability in the agents which are prepared for his use. Some agents are only valuable when prepared from the green herb, and yet they are prepared from the dry; some only in tincture or syrup, and yet they are given in powder.

Third.—Another difficulty arises from the want of unity and harmony among therapeutists as to the true physiological action of certain widely used medicinal agents. This is illustrated in the vegetable kingdom by sanguinaria canadensis, and in the mineral kingdom by calomel. The contrariety of opinion in regard to the physiological action of these important medicinal agents, demonstrates the difficulties which environ the student of medicine in reaching a reliable conclusion in regard to the factors which constitute his *armamentarium*.

PHILOSOPHY.

One fact has been clearly demonstrated in the progress of therapeutics which constitutes a reliable basis for substantial progress, viz., certain agents exert a specific action on certain organs and tissues. This action must be clearly defined before any practical result can follow its application. The pathological condition of the organ to be acted on must be clearly defined in order to prevent exciting therein a more formidable trouble than already exists. Thus, cathartics and diuretics are of great range and physiological divergence; some harsh, others mild—the remedy must therefore be used to accomplish a certain physiological effect, only as the pathological state will justify. Pathology constitutes, then, the basis principle of all reliable therapeutics.

To treat a disease from the standpoint of its supposed cause is to substitute empiricism for philosophy, and hypothetical factors for clearly-defined scientific indications. It matters not from what cause a fever springs, we know that so soon as all the functions are restored to a normal condition, the fever disappears.

The boldness with which men proclaim themselves allopaths, homeopaths, hydropaths, etc., is a demonstration of the brazen effrontery with which they can boast of their ignorance and stupidity. In either case the nature and extent of disease is measured by the ostensible symptoms which may spring from as many different causes and pathological conditions.

Any medicinal agent may produce various effects by increasing or diminishing the dose. And yet a careful analysis will demonstrate that the legitimate physiological action has been preserved, and the varying effects are the result of well-defined physiological

laws. The legitimate and proper sanative effect, of any remedy, is that in which its physiological action on an organ is attained with the least disturbance of the functions of other organs.

The assumption, declaration or *ipse dixit* of no one in the medical profession is entitled to be esteemed as authoritative, no matter how high the position or world-wide the reputation of the author, which is not sustained by well-established physiological results of remedial agents in well-defined pathological conditions. The indiscriminate use in fevers, of so-called antipyretics, especially of the coal-oil family, is a clear demonstration of this. The first impression of these agents is to allay pain when it exists, or to produce a state of repose and quietude. Fever heat springs from the evolution of acrid, exciting and ptomainic products of retained secretions, or the products of retrogressive metabolism, under the action of chemical laws; vital laws having ceased to operate.

So long as these chemical changes are progressing, the temperature rises in proportion to the aberration of function, and the violence of the chemical changes. The indications are to restore the secretions, eliminate the vitiated accumulations, re-establish the vital laws, and restore the lost balance. Should antipyretics be given in this state, the sensibility of the nervous centres, both animal and organic, is obtunded, and the tissues no longer responding to the irritating and exciting products of chemical forces, sink into a state of comparative repose, and all the heat-producing agencies are, for the time, kept in abeyance. As, however, no chemical changes are wrought within, no vital forces are awakened, and no secretions are aroused, whereby vitiated matters are eliminated, so soon as the analgesic effect of the antipyretic is expended, the febrile re-action becomes as high or higher than at first, rendering the last state worse than the first.

As disease is the result of suspended or perverted functions, to re-establish and restore their normal operations is the province of the therapeutist. To do this rationally and scientifically is to fullfil the demands of Therapeutical Philosophy.

—o—

No. 264.

THE ANTIPYRETIC ACTION OF CALOMEL.

By Drs. R. J. Nunn and A. B. Simmons,
Savannah, Ga.

From the use of calomel in these twenty-five cases of typhoid and continued fever cases we have drawn the following conclusions:

First.—Calomel is a sure and safe antipyretic, reducing the temperature from two to three degrees in a few hours.

Second.—Small doses will prove of no avail.

Third.—The ingestion of large doses was followed by no untoward event, no ptyalism no hyper-catharsis. This is contrary to the usual opinion.

Fourth.—Diarrhea, hemorrhage, albuminuria, tympanites have not been contra-indications to the use of the remedy.

Fifth.—The reduction of temperature occurs without cathartic action on the bowels.

Sixth.—The calomel acts best in combination with soda, bismuth and pepsin.

Seventh.—That in some instances the remedy appeared to cut short an attack, and in others, while having no influence on its duration, it modified all symptoms, and by keeping temperature in check aided materially in the management of the case.

—o—

No. 265. "Some Views Regarding the Philosophy of Drug Action," by J. W. McLaughlin, M. D., Austin, Texas.

[Abstract.]

—o—

No. 266.

THE EFFECT OF ADVANCED CIVILIZATION ON DISEASE.

By W. J. Moody, M. D.,
Plainfield, Iowa; Member Auxiliary Committee of Iowa.

A traveler having ascended Vesuvius to witness the phenomena of an approaching eclipse, depicts the awful appearance of the enormous shadow as it darted with lightning speed across the Campagna and the Bay of Naples; in like manner we are bewildered by the astounding increase of insanity and kindred affections accompanying the phenomenal centralization of population characterizing in so marked a degree the present times.

Taken in connection with the established fact that extermination awaits the third generation in large towns, without the infusion of "fresh blood," this tendency is a cloud looming from the future with dark and portentous aspect; however, threatened evil well understood is half remedied, and it may not be expecting too much to hope that with our advancing therapy and hygiene, we shall be able ultimately to stem the tide of deleterious influences which produce this one.

Another decade will probably enhance our knowledge and means of combating some of those types of disease, which, like ataxia, increase through the generations in a sort of arithmetical ratio till the affected stock is finally exterminated.

It is of vital interest to learn to what extent our developing means of prevention and cure are adequate to contend with these untoward tendencies which have acquired the impetus of a tidal wave.

It is seemingly reasonable to hope that the science of medicine will, like other branches, develop almost incredible resources; in which case, as in that of electricity and mechanics, these may be of so astounding a nature as to utterly shatter the cautious predictions of preceding decades.

Wonderful reduction of death rates has been affected in former ages, even with the imperfect means and appliances which our ancestors could command. After the great fire which nearly annihilated London in 1666, future ravages of the plague which had up to that period decimated Europe, were rendered impossible by improved hygienic methods. More recently the same scourge has been stamped out in Upper Egypt by the interdiction of the casting dead bodies into the Nile, where they accumulated in its delta and produced pestilential exhalations.

It is not unreasonable to expect that like restrictive measures will be put in force at the sources of the Ganges and the Indus. It is this region which furnishes the nursery stock of Asiatic cholera, where it prevails every season, ever ready to spring like a tiger from his lair and devastate the earth; in this case the obstacles to be overcome are apparently insurmountable, from the myriad population who are fanatically attached to the religious rite of casting their dead into the bosom of the holy river; however civilization delights in overcoming seemingly insurmountable obstacles, and the mitigation of this stupendous nuisance would result in an almost incalculable saving of human lives.

La grippe, a disease naturally of a harmless nature, has a terrible virulence given to it by the inconceivable filthiness of the people of Southwestern Russia, among whom its lethal germs fester and seethe till they overflow and contaminate the whole earth. With the autocratic power invested in the Russian government this pest is certainly amenable to control, and if this were effective it would result in the prevention of death rate compared with which that even of the cholera is insignificant.

—o—

No. 267. "The Treatment of Leprosy," by Richard H. L. Bibb, M. D., Satillo, Mexico.

[Abstract not furnished.]

—o—

No. 268. Paper, by Fernando Altamirano, M. D., City of Mexico, Mexico.

[Neither Title nor Abstract furnished.]

—o—

No. 269. "The Clinical Import of Koumyss," by J. Mount Bleyer, M. D., New York, N. Y.

[Abstract.]

—o—

No. 270.

TREATMENT OF EXOPHTHALMIC GOITRE, BASED ON FORTY-FIVE CONSECUTIVE CASES.

By A. D. Rockwell, A. M., M. D.,
New York City.

Basing my judgment upon the results that have been observed in these forty-five cases, I hold that the prognosis in exophthalmic goitre is better than is generally believed. If these results are more encouraging than those usually recorded, I attribute them to a more rational use of electricity—the remedy that has been my main reliance, and to a greater thoroughness and persistency in its application.

Among drugs I have found a combination of iron, ergot, digitalis or strophanthus and bromide of zinc to be distinctly valuable and to more nearly fulfill the indications in the

majority of cases, than any other single remedy or combination of remedies. Under certain conditions, both iron and digitalis are contra-indicated. In sthenic cases where the excitability of the heart is great without enfeeblement, digitalis may do harm. Very frequently, however, there is enfeeblement of the myocardium, and digitalis is useful in slowing the rapid systole associated with it. The condition of the heart thus becomes improved by the physiological rest it obtains through prolongation of the diastole.

Strophanthus has received high commendation, and on theoretical grounds it is recommended in preference to digitalis. While both tend to lengthen the interval between the contractions of the heart, strophanthus is supposed to contract the calibre of the arterioles in less degree than digitalis, and is to be preferred as not increasing the work of the heart to the same degree as the latter. In reference to the observations of Gowers, Eulenberg, Gutman, Vigoroux, Charcot and others, on the electrical treatment of exophthalmic goitre, I would call attention to the utter inadequacy of the strength of current used and the incomplete and hap-hazard way in which the applications are usually administered. These authorities, in recommending constant currents of very slight tension, seem not to appreciate the fact that in the therapeutic use of electricity, we are dealing with a hide-bound body which offers such a resistance to the passage of the current, that our ingenuity is taxed to the utmost in order to overcome this resistance without pain, and get into the body a sufficient quantity of electricity to affect the cerebro-spinal system and the nervous system of vegatitive life. Again, efforts should not be confined alone to drugs and the galvanic current, but the faradic current, after the method of general faradization, is useful. While the method of Eulenberg and Gutman in using simple localized faradization in the vain attempt to directly affect the sympathetic, and the faradization of the præcordial region by Charcot may possibly do some good, they cannot compare in efficiency with general faradization—a method that has been abundantly tested and which rests upon a sound physiological basis. For the cases which are detailed I am mostly indebted to various members of the profession—who have with me watched their progress, noting both the successes and failures. Out of these forty-five cases, three received no benefit whatever. Twenty-seven were benefited, some of them greatly, others slightly. Fourteen cases either fully or approximately recovered.

——o——

No. 271. "Etude sur un Moyen d'assurer l efficacite du copaiba daus la medication suppressive de la blererrhage urethrale," by L. T. C. Lamothe, M. D., Port au Prince, Haiti.

[Abstract.]

——o——

No. 272. "Action physiologique de quelques plantes bresiliennes de la famille des Menespermacies," by J. B. Da Lacerda, M. D., Rio de Janeiro, Brazil.

[Abstract.]

No. 273. "Une plante Convulsevante du Bresil," by J. B. Da Lacerda, M. D., Rio de Janeiro, Brazil.

[Abstract.]

—o—

No. 274. "Pathology and Treatment of Gout," by James Tyson, M. D., Philadelphia, Pa.

[Abstract.]

—o—

No. 275. "Contribution to the Therapeutics of Yellow Fever," by Pedro Peñuelas, M. D., Havana, Cuba.

[Abstract.]

—o—

No. 277. "Some Points in the Treatment of Uric Acid Diathesis," by F. E. Stewart, M. D., Watkins, N. Y.

[Abstract.]

—o—

No. 278. "A Contribution to the Treatment of Diabetes Mellitus," by Solomon Solis Cohen, M. D., Philadelphia, Pa.

[Abstract.]

—o—

No. 279. Discussion on "The Value of the Bath in some Sthenic Conditions, Particularly Typhoid Fever."

[Abstract.]

—o—

No. 280. Joint Discussion on "The Indications which should Govern the Employment of the Several Anæsthetics."

[Abstract not furnished.]

—o—

No. 281. "Electricity, its Use in Medicine," by F. Schavoir, M. D., Stamford, Conn.

[Abstract.]

—o—

No. 282. "The Use of Phenocoll in Malaria," by David Cerne, M. D., Galveston Texas.

—o—

No. 283. "The Effect of Advanced Civilization on Disease and the Treatment of Disease," by W. J. Moody, Plainfield, Iowa.

—o—

No. 284. "Orexin in Anorexia," by James T. Whittaker, M. D., Cincinnati, Ohio.

SECTION ON ANATOMY.

HONORARY PRESIDENTS:

Dr. Harrison Allen, Philadelphia; Dr. Frank Baker, Washington; Dr. Jos. D. Bryant, New York; Dr. Celso Bamberén, Lima, Peru; Dr. P. S. Conner, Cincinnati; Dr. Miguel Cordero y Gómez, City of Mexico, Mexico; Dr. Corydon L. Ford, Ann Arbor, Mich.; Dr. Enrique Horstman, Puerto Principe, Cuba; Dr. Hunter McGuire, Richmond; Dr. L. Augusto Orrego, Santiago, Chile; Dr. John E. Owens, Chicago; Dr. L. S. Pilcher, Brooklyn; Dr. F. D. Weisse, New York; Dr. Bert. G. Wilder, Ithaca, N. Y.

EXECUTIVE PRESIDENT:

Dr. John B. Roberts, 1627 Walnut St., Philadelphia, Pa.

SECRETARIES:

Dr. D. S. Lamb (English-Speaking), 800 10th St., N. W., Washington, D. C.	Dr. A. M. Fernandez (Spanish-Speaking), 209 W. 10th St., New York, N. Y.	
Dr. Justo [Victoria 1778]	Buenos Aires	Argentine Republic.
Dr. Manuel B. Mariaca	La Paz	Bolivia.
Dr. Ernesto Crissiuma	Rio de Janeiro	U. S. of Brazil.
Dr. F. J. Shepherd	Montreal	Canada.
Dr. Federico Hortsman [Prado 109]	Havana	Cuba.
Dr. Juan D. Herrera [Carrena 1ª, Nu. 272]	Bogota	Rep. of Colombia.
Dr. Juan J. Ortega	Guatemala City	Guatemala.
Dr. F. L. Miner	Honolulu	Hawaii.
Dr. Fernando, Valquez	Tegucigalpa	Honduras.
Dr. Miguel Zuñiga [Botica de Santa Catarina]	City of Mexico	Mexico.
Dr. E. Solorzano	Masaya	Nicaragua.
Dr. José M. Carafí [Facultad de Medicina]	Montevideo	Uruguay.
Dr. Domingo Hernandez Bello	Mérida	Venezuela.

SECTION ON ANATOMY.

No. 301. "Anomalies of the Larynx as seen by the Specialist," by Wm. T. Cathell, M. D., Baltimore, Md.

[Abstract.]

—o—

No. 302. Paper, by T. Griswold Comstock, M. D., St. Louis, Mo.

[Neither Title nor Abstract furnished.]

—o—

No. 303. Paper, by R. B. Gilbert, M. D., Louisville, Ky.

[Neither Title nor Abstract furnished.]

—o—

No. 306. "The Diaphragm," by H. E. McIntire, M. D., Hudson, Wis.

[Abstract not furnished.]

—o—

No. 307.

A NOTE ON THE OCCURRENCE OF THE SCAPULO-CLAVICULAR MUSCLE.

By Robert O. Moody, B.S.,
New Haven, Conn.

The existence of this muscle, which is described by Wood and Gruber and noted by Destut, MacWhennie, Hallet and Luschka, is said by Testut in his book, "Les Anomalies Musculaires chez L'Homme," to be very rare.

Last January, in the dissecting room of Yale Medical School, I found this muscle on the left shoulder of a male subject. It arose from the superior border of the scapula and was attached to the inferior surface of the clavicle.

* * * * * * * * *

The note giving a more detailed description of the muscle which I found would occupy not more than three or four minutes' time.

No. 308.

"MALLET FINGER."

By Robert T. Morris, M. D.,
New York.

The deformity here described is not uncommon among men who engage in athletic sports.

When the extensor tendons of the fingers are tense a blow upon the end of the finger transmitting force in a direction which would ordinarily flex the finger, results in injury to an extensor tendon in the vicinity of its attachment to the dorsal surface of the last phalanx. The injury consists, not in a bodily separation of the tendon from its points of attachment, but rather in a thinning of the tendon cephalad from the principal point of attachment to the phalanx, and from the fibres which form the posterior ligament of the last phalangeal articulation. A few fibres of the tendon are undoubtedly ruptured, but most of them slide away from each other very much as the threads of a textile fabric separate when the fabric is violently stretched but not torn.

Immediately after the occurrence of the injury to the tendon the last phalanx of the finger assumes a semi-flexed position, and this deformity is usually permanent; the extensor tendon then having little or no influence upon the phalanx.

The tendon is repaired surgically by making a longitudinal incision about two centimetres in length over the site of the injury, dividing the thinned tendon longitudinally into the two principal fasciculi into which it naturally separates, dividing the tendon transversely cephalad from the thinned point, and advancing each fasciculus to a point upon its own side of the finger, near the base of the finger nail. At this point the fasciculus is sutured to the under surface of the skin with a suture which passes through the skin and is tied upon the outside. The fasciculi are sutured to skin rather than to periosteum and tendinous remains, because the former structure gives the firmer hold and the cut end of tendon makes a good union with the phalanx as it would if sutured directly to periosteum. A perfect finger results from the operation.

Four cuts illustrate the paper.

—o—

No. 309.

LAWS OF THE GROWTH OF THE CELL APPLIED TO HUMAN ANATOMY.

By Robert Reyburn, M. D.,
Washington, D. C.

The living cell the unit of structure from which all living bodies, vegetable as well as animal, are built up.

Error of studying human anatomy in the adult human body, and in not commencing the study by tracing the development of the human ovum, through its successive stages to the completed organism.

Structure of the human body as a whole.
Differences between the growth of inorganic bodies and the growth of living bodies.
Shapes of organic and inorganic bodies.
Conditions modifying and changing the shapes of organic forms.
Shapes of organic forms modified by type of parent cell. Vaccine virus.
Shapes of organic forms modified by pressure.
Shapes of organic forms modified by heat.
Shapes of organic bodies modified by the supply of nutriment in certain directions.
Growth of the abdominal and other cavities of the human body.
Growth of the stomach and intestinal tube. Growth of the blood-vessels and all the hollow viscera of the body.
Growth of the human body as a whole. Youth, maturity and old age of the body. The laws of growth of the cell correspond to the laws of growth of the human body.

—o—

No. 310. Paper by E. G. Conklin, M. D., Delaware, Ohio.
[Neither Title nor Abstract furnished.]

—o—

No. 311.

THE PRESENCE OF LINGUATULA RHINARIA (L. SERRATA, PENTASTOMA TAENIOIDES) IN THE UNITED STATES.

By C. W. Stiles, Ph. D.,
Medical Zoologist, Bureau of Animal Industry, United States Department of Agriculture.

Record of three cases of this parasite in domesticated animals in the District of Columbia. Short review of life-history of parasite. Its occurrence in man. Possible modes of infection. Account of experiments now in progress. Exhibition of specimens.
Time, ten minutes.

—o—

No. 313. "Nerve Anastomosis," by A. C. Bernays, M. D., St. Louis, Mo.
[Abstract not furnished.]

—o—

No. 314. Paper by Geo. A. Bingham, M. D., Toronto, Canada.

—o—

No. 315. Paper by E. B. Kenner, M. D., St. Louis, Mo.

—o—

No. 316. Paper by Jos. D. Bryant, New York, N. Y.

No. 318. Paper, by CHAS. S. MINOT, M. D., Boston, Mass.

——o——

No. 319. Paper, by JOHN C. MUNRO, M. D., Boston, Mass.

——o——

No. 320. Paper, by J. T. NEWMAN, M. D., New Orleans, La.

——o——

No. 321. Paper, by GEO. A. PIERSOL, M. D., Philadelphia, Pa.

——o——

No. 322. Paper, by JAMES B. PRICHARD, M. D., St. Louis, Mo.
[Neither Title nor Abstract furnished for 314 to 322 inclusive.]

——o——

No. 323.

A PART OF THE ANATOMY OF THE VELUM PENDULUM PALATI.

BY THOMAS F. RUMBOLD, M. D.,
San Francisco, Cal.

Some time ago, as I was discussing the ridge that extends up and down the posterior surface of the velum pendulum palati, I discovered that the muscles forming this elevation, that are called the azygos uvulæ muscles in all works on anatomy, were two pairs of muscles: an upper and lower pair.

The upper pair, or, as I have named them, the elevator palati muscles, arise from the posterior nasal spine of the palate bone, and from the contiguous tendinous aponurosis of the velum pendulum palati, and are inserted at about the junction of the lower third of the velum palati with the middle third, interlacing with the fibres of the lower pair of muscles.

The lower pair, or, as I have named them, the elevator uvulæ muscles, arise at the place of insertion of the elevator palati muscles—their fibres interlacing with them—pass downward and are inserted into the connective tissues of the lower extremity of the uvula and form this organ.

The four muscles form the ridge on the back of the palatum molle, which may be seen by a pharyngeal reflector. This ridge I have named the Azygos Prominence.

The action of these two pairs of muscles can be plainly seen on inspection of the anterior surface of the velum palati while the mouth is open and the tongue is slightly depressed.

On some persons the effect of the contractions of the elevator palati are more marked than on others. Upon asking the person examined to move the velum palati upward and downward, after a number of efforts, a dimple will be seen on the under side of the velum a little below the centre. This dimple or indrawing of the under surface of the velum

indicates the location of the insertion of the elevator palati on the upper or posterior surface of the velum palati. It is seen to be two-thirds—or nearly that—of the way down the central line of the velum pendulum palati.

Some say that this is the action of the elevator palati, another and very different pair of muscles, but these muscles are inserted into the whole width of the velum palati from the base of the uvula to the nasal spine of the palate bone; so that their contraction could not raise one spot so as to form a dimple on the underside of the velum pendulum palati.

It will be seen that this action of the elevator palati has no effect upon the uvula. During the efforts of the person examined to elevate and depress the velum palati, the uvula will be noticed to be elevated, both with and without the dimple on the under side of the velum, showing that there are two distinct sets of muscles, one to elevate the velum pendulum palati, and the other to elevate the uvula.

Another method of demonstrating the action of these two pairs of muscles, is by means of a gentle faradic current. A metal probe insolated, except at the point, which is slightly bent, is passed into one of the nasal passages and made to rest upon the azygos prominence. A gentle current of electricity is now turned on while inspection is made upon the velum palati through the open mouth. As the probe is slowly passed down the posterior wall of the palatum molle, the effect of the contraction of the muscles occasioned by the electricity is plainly seen when the probe is over the centre of the elevator palati muscles, producing the dimple on the under surface of the velum pendulum palati. As soon as the probe is passed still lower, so as to be over the elevator uvulæ muscles, the uvula is at once elevated so as to be, many times, out of sight, showing plainly the action of the two pairs of muscles.

—o—

No. 324. Paper, by D. F. Rodgers, M. D., Topeka, Kan.
[Neither Title nor Abstract furnished.]

—o—

No. 325. Paper, by Middleton Michel, M. D., Charleston, S. C.
[Neither Title nor Abstract furnished.]

—o—

No. 326. Paper, by E. S. Stevens, M. D., Cincinnati, Ohio.
[Neither Title nor Abstract furnished.]

—o—

No. 327. "The Human Hand," by Geo. W. West, M. D., Washington, D. C.
[Abstract not furnished.]

—o—

No. 328. Paper, by Geo. A. Wilcox, M. D., Augusta, Ga.

No. 329. Paper, by W. P. Wilson, M. D., Philadelphia, Pa.

——o——

No. 330. Paper, by Edwin Bentley, M. D., Little Rock, Ark.

——o——

No. 331. Paper, by Henry C. Boenning, M. D., Philadelphia, Pa.

——o——

No. 333. Paper, by E. F. Clapp, M. D., Iowa City, Iowa.

——o——

No. 334. Paper, by J. W. Hartigan, M. D., Morgantown, W. Va.

——o——

No. 337. Paper, by J. W. Perkins, M. D., Kansas City, Mo.
[Neither Title nor Abstract furnished for 328 to 338 inclusive.]

——o——

No. 338. "Surgical Anatomy of the Appendix Vermiformis with some Anatomical abnormalities observed," by R. H. Plummer, M. D., San Francisco, Cal.
[Abstract not furnished.]

——o——

No. 339. Paper, by E. S. Herns, M. D., Lebanon, Ohio.
[Neither Title nor Abstract furnished.]

——o——

No 340.

THE DISSECTING ROOM.

By E. W. Holmes, M.D.,
Philadelphia, Pa.

The writer originally intended to discuss all the various problems which present themselves in the practical management of the dissecting room, and thereby to benefit from the discussion thus evoked, but the necessities of time and space compel the omission of some.

The equally important motive is to call attention to the neglect of the practical work into many of our schools.

The distaste for the work is inherent in its very nature.

Dissection should be legalized and public opinion educated.

Chloride of zinc, upon the whole is the best preservative, in this climate where bodies are to be kept for a considerable period.

With proper precautions the demonstrator of anatomy may attend to obstetrics and operative surgical work with safety.

Didactic lecturing is peculiarly ill fitted for the teaching of anatomy. Its the eye and hand, not the ear, that needs the careful training here. This is recognized theoretically but not practically in the great majority of our schools.

The difficulties are:

(1) The isolation of the rooms and the difficulty of access.

(2) The scarcity of bodies which in many States prevents the selection of only fit material.

(3) The minimizing of the practical work.

(4) The irregularity of the methods of work.

(5) It is a paradox that we only know our anatomy through our dissecting. Yet we must know the structures in order to dissect intelligently.

The remedy is:

(1) The minimizing of the didactic and the increase of the practical work upon the cadaver.

(2) Frequent demonstrations (rather than lectures) to small sections.

(3) The division of the classes into sections for work here as in other laboratories, for the stated periods and hours.

(4) The supply to the rooms of numerous dissected specimens kept in alcohol, which shall be frequently examined by the students, before, during and after the course of dissection. The ideal would be a demonstration upon the cadaver to a class, each of whom had a similar specimen at least upon which to follow the speaker.

(5) Personal supervision of each of the tables by a special assistant.

(6) Frequent examinations in practical rather than theoretical data.

(7) The rooms should be easy of access and should be conducted in as orderly a manner as in any other laboratory.

(8) Scientific records of anamolies and pathological appearances should be carefully made

(9) The student should be stimulated to spend his spare time in the anatomical room by the arrangement to this end in the roster of the medical school, by the undivided and enthusiastic personal supervision of the teachers, of which there should be many, and by the emphasis laid upon the practical rather than upon the theoretical in the examiner's room.

———o———

No. 342.

THE RELATIONS OF THE HEART AND LUNGS TO THE ANTERIOR CHEST WALL AS DETERMINED BY COMPOSITE PHOTOGRAPHY.

By Irving S. Haynes, Ph. D., M. D.,
New York City.

(1) Description of the method of composite photography when applied to the purpose of determining visceral relations.

(2) Relations ascertained by this method in two subjects.
(3) Summary of relations as given by various authors.
(4) Photographs and drawings illustrating the paper.

—o—

No. 343.

BONE AND ORGANIZED SUBSTANCE.

By George Frederick Koehler, M. D.,
Adj. Professor and Lecturer on Anatomy, Medical Department, Oregon State University, Portland, Ore.

The bones, the organs of support of the animal frame, would appear to the superficial observer to be merely inorganic compounds—resisting for ages the influence of time, impressive factors, the emblems of the decay of past generations—but this is not true, for by minute examination we are able to trace the numerous vessels, and study the internal structure of bone, and to demonstrate that the bones are supplied with blood like the softer parts, and that, similar to other structures of the human economy, they have their periods of growth and decay, and are quite as susceptible as are other organs of the body to disease and derangement from external influences.

—o—

No. 344.

CRANIOMETRIC MEASUREMENT OF 500 SKULLS IN RELATION TO AURAL TOPOGRAPHIC ANATOMY.

By B. Alex. Randall, M.A., M. D.,
Philadelphia, Pa.

The limited endeavors previously made to thus gain light for aural surgery having proved insufficient and contradictory, a wider research seemed to be requisite; and a method has been employed applicable to any intact skull. Calipers introduced through the foramen magnum gave the minimum distance of the sigmoid sinus from the mastoid surface and the position of this thinnest point behind the *spina supra meatum*. The separation of the sulcus from the back-wall of the meatus and from an "operation-point" 5 mm. behind the *spina*, were measured in the same way. Inside calipers gave the extreme separation of the sulcus from its fellow of the opposite side; while external measurement furnished the distances apart of the *spina* and of the operation-points, as well as the maximum length and parietal breadth of the skull. This breadth divided by the length gave the index, in accordance with which the crania were grouped as mesocephalic (.777 to .799) and dolichocephalic or brachycephalic when longer or shorter, respectively. Separate groups were made of sixty skulls at each extreme of the opposite types—over .860 or under .720.

Another specially-constructed caliper gave the height of the floor of the middle cerebral fossa above the upper margin of the external meatus and the lateral position of

this lowest point within or beyond the *spina*. The relative size of the sigmoid sulcus and of the jugular foramen on the two sides was also noted, as bearing upon the vulnerability of the lateral sinus in case of operation.

In the 500 skulls the thinnest point averaged 6.1 mm. (max. 20, min. 0) on the right, 6.6 mm. (18 to 9) on the left; being greater on the right in 151, on the left in 231; it was located behind the spina 17.8 mm. (40 to 0.5) right, 17 mm. (35 to 1) left. From the meatus to the sulcus the distance averaged 12.1 mm. (21 to 0) right, 12.5 (18 to 0) left; being greater on the right in 153, on the left in 201. The "operation-room" (distance of the sulcus from a point 5 mm. back of the *spina*) averaged 11.3 mm. (20 to 0.3) right, 11.8 (25 to 0) left; the right being larger 159 times, the left 206. The sigmoid sulcus was found larger on the right in 225 (+ 53?); larger left in 128 (+ 47?), equal in 47. The jugular fossa and foramen often differed: it was larger right in 277 (+ 29?), left in 125 (+ 18?) and equal in 51. The long and short skulls each showed nearly the same averages and maxima and minima as the whole 500; but in the extreme types, the brachycephalic showed less operation-room (10.4: 12.1 right, 11.2: 12.6 left), a less meatus to sulcus distance (11.2: 12.7 right, 12.4: 12.5 left) and a more superficial sinus (6.4: 6.8 right, 6.8: 7.4 left).

The floor of the middle cerebral fossa averaged 6.6 mm. (15 to 0) right, 5.6 (15 to 0) left, above the upper margin of the external meatus, being lower on the left in 287 and on the right in 102—the brachycephalic skull, even of the extreme type, showing no noteworthy difference from the extreme dolichocephalic or the general average of the entire 500.

While not sufficiently extensive to be conclusive, this study certainly shows that the cranial index gives little pointing as to the anatomical relations likely to be met by the operator; and it proves that maximal or minimal dimensions may be encountered in any type of skull.

——o——

No. 345. "A Case of Supernumerary Nipples, with Remarks upon and Literature of the Subject," by ALBERT PICK, M. D., Manchester, N. H.

[Abstract not furnished.]

——o——

No. 346. "On the Zona Radiata of the Telostean Ovum," by JACOB REICHARD, M. D., Ann Arbor, Mich.

[Abstract.]

——o——

No. 347. "On Teaching Comparative Anatomy and Embryology to Large Classes of Medical Students," by A. P. OHLMACHER, M. D., Chicago, Ill.

[Abstract not furnished.]

SECTION ON PHYSIOLOGY.

HONORARY PRESIDENTS:

Dr. José M. Bandera, City of Mexico, Mexico; Dr. James Blake, San Francisco; Dr. R. H. Chittenden, New Haven; Dr. Austin Flint, New York; Dr. C. Heinemann, Vera Cruz, Mexico; Dr. Joseph Jones, New Orleans; Dr. J. B. De Lacerda, Rio de Janeiro; Dr. H. N. Martin, Baltimore; Dr. Wesley Mills, Montreal, Canada; Dr. S. Weir Mitchell, Philadelphia; Dr. E. T. Reichert, Philadelphia; Dr. Antonio Pérez Roca, Lima, Peru; Dr. Magín Sagarra, Santiago de Cuba, Cuba; Dr. Cárlos Schönlein, Santiago, Chile.

EXECUTIVE PRESIDENT:

Dr. Isaac Ott, Easton, Pennsylvania.

SECRETARIES:

Dr. A. P. Brubaker (English-Speaking), 40 N. 19th St., Philadelphia, Pa.	Dr. Wm. A. Thom (Spanish-Speaking), 128 Main St., Norfolk, Va.

Dr. Señorans [Defensa 293]	Buenos Aires	Argentine Republic.
Dr. Enrique Hertzog	La Paz	Bolivia.
Dr. J. Paulo de Carvalho	Rio de Janeiro	U. S. of Brazil.
Dr. A. B. MacAllum	Toronto	Canada.
Dr. Julio San Martin [Dragones 94]	Havana	Cuba.
Dr. Antonio Várgas Vega [Calle 10, Núm. 305]	Bogota	Republic of Colombia.
Dr. Cárlos Durán	San Jose	Costa Rica.
Dr. Cárlos Padilla	Guatemala City	Guatemala.
Dr. F. L. Miner	Honolulu	Hawaii.
Dr. Esteban Ferran	Tegucigalpa	Honduras.
Dr. Manuel Toussaint [San José de Gracia 12]	City of Mexico	Mexico.
Dr. Guerra	Rivas	Nicaragua.
Dr. Juan Morelli (hijo) [Arapey 192]	Montevideo	Uruguay.
Dr. Ramón Porra Picón	Merida	Venezuela.

SECTION ON PHYSIOLOGY.

No. 351. "American Physiology—Past, Present and Future," by Isaac Ott, M. D., Executive President of Section, Easton, Pa.
[Formal Address.]

—o—

No. 352.

A TABULAR VIEW OF THE PATHOLOGICAL ANATOMY OF YELLOW FEVER AND MALARIAL FEVER.

By Joseph Jones, M. D.,
New Orleans, La.

Yellow Fever.	Malarial Fever.
Exterior.	*Exterior.*
Cerebro-spinal. Nervous system.	Cerebro-spinal. Nervous.
Sympathetic nervous system.	System. Sympathetic. Nervous system.
Heart Yellow and softened.	Heart. Normal, no change in color or structure.
State of fatty degeneration.	No fatty degeneration.
Lungs. Dependent portions congested, otherwise normal.	Lungs. Dependent portions congested, otherwise healthy.
Stomach. Congested and filled with black vomit.	Stomach. No uniform condition.
Intestines. Congested and filled with gas.	Intestines. No uniform condition.
Liver, yellow color. Liver cells and liver structure generally filled with oil globules.	Liver, slate color on exterior and bronze within. The portal capillaries filled with black pigmentary and melanotic matter.
Gall bladder. Small, contracted. Contains about 300 grains of yellow bile.	Gall bladder, distended with 1500 grains of dark greenish, black bile.
Spleen. Slightly enlarged and softened.	Spleen, more or less enlarged. Sometimes attains a size larger than that of the liver, weighing several pounds.
Supra-renal bodies.	Supra-renal bodies.
Fatty degeneration.	No change.
Kidneys. Brownish yellow and softened, disquamation of excretory cells of the tubuli-uriniferi.	Kidneys. Generally normal, sometimes slate colored in patches. In malarial hæmaturia bright red from effused blood.
Urinary bladder contains albuminous urine with excretory cells and granular casts.	Urinary bladder. Normal with relatively abundant excretions.

No. 353.

THE EFFECTS OF LESIONS OF CERTAIN PARTS OF THE BRAIN UPON THE HEAT PROCESSES.

By Edward T. Reichert,
Professor of Physiology, University of Pennsylvania.

The object of the research was to determine the effects of transverse sections of certain parts of the base of the brain upon heat phenomena. The experiments were made on dogs. In some merely temperature records were taken; in others, the method was calorimetrical; in others, observations of the alterations in temperature, circulation and respiration were simultaneously made.

The parts studied were, the white matter just anterior to the caudate nuclei, the striated bodies, the optic thalami, the crura cerebri and the pons Varolü.

The technique of the operations was in nearly all cases the same. The animals were anæsthetized with ether, chloroform or a mixture of both; a small trephine opening was made in the side of the skull opposite to and on a level with the upper surface of the structure to be cut; the membranes were punctured; a slightly bent probe (one millimetre thick and two millimetres wide) was inserted horizontally and pushed across the brain until the skull on the opposite side was reached, and then with a downward, sweeping movement all of the cerebral mass below the probe was severed.

In two experiments in which section was made of the white matter within one millimetre of the heads of the caudate nuclei the temperature fell in both.

Twelve experiments were made in which the striated bodies were cut, six of which were calorimetrical. In every one a rise of temperature was recorded. The increase was due to an increase of heat production.

In three experiments in the optic thalami, in which the sections did not involve the corpora striata, there occurred an immediate, slight and transient rise of temperature, which was followed by a decided and lasting fall.

Section of the crura cerebri was made in twenty experiments in which the temperature was specially studied. The temperature increased in sixteen and fell in four. In eight additional experiments made with the calorimeter, in four a slight and transient rise was noted which was followed by a fall; in the other four a marked fall was recorded.

The pons Varolü was cut in seven experiments. In six the temperature was increased and in one diminished.

Comparisons made between the effects on temperature and those on the circulation and respiration show that the former are practically entirely independent of the latter; and calorimetrical experiments prove that the increase of temperature is due essentially to increased heat production, and the fall of temperature to diminished heat production. The increase of heat production is owing to excitation of accellerator thermogenetic centres or fibres and not to a loss of thermo-inhibitory influence.

——o——

No. 354. "The Relation of the Mogenesis to the Voso-motor System," by Dr. Bartolemeo Baculo, Naples, Italy.

[Abstract.]

No. 355.

THE GLOBULICIDAL ACTION OF BLOOD SERUMS.

By William S. Carter, M. D.,

Assistant Demonstrator of Pathology, University of Pennsylvania.

It is well known that if you inject into the veins of some animals the blood serum of certain other species of animals, there is produced an hæmaglobinuria and albuminuria. The destruction of red blood corpuscles has been watched under the field of the microscope, by mixing the blood of some animals with the clear serum of others. This paper will give a study of the number and kinds of corpuscles of animals injected with the blood serums of other species. The number of corpuscles were estimated by the Thoma hæmatocytometer, although in a few instances Gower's was employed. The leucocytes were also examined in fixed preparations and divided for the purpose of studying into the following classes: (1) symphocytes; (2) large mononuclear; (3) transitional; (4) multinuclear; (5) eosinophiles.

The recent investigations on immunity and prominence given to blood serum therapeutics make it important to know what change occurs in the blood of animals under these circumstances and also to know something of the toxicity of blood serums.

The serum was obtained by bleeding animals with all antiseptic precautions into sterilized flasks and then standing the blood in an ice chest and allowing the serum to separate from the clot. The experiments were chiefly on rabbits and dogs, as the blood can be easily obtained from these animals by sticking their ears. The injections were made both subcutaneously and intravenously, all the apparatus used being very carefully sterilized.

It was found that the rapid introduction of a small quantity of serum of a healthy man, into the vein of a rabbit caused death in a very few minutes, and that there was also a marked diminution in the number of red blood corpuscles. When the injection was made slowly there was a much greater destruction of red blood corpuscles, a larger quantity of serum was used and death came on much later. Death always occurred by respiratory failure, the heart beating after respiration ceased. There were no symptoms of dyspnœa. In the cavities of the heart there were sometimes found soft, non-adherent currant-jelly clots. The subcutaneous injection of larger quantities caused a diminution in the red blood corpuscles, but produced no symptoms.

When serum of man is injected into the veins of dogs, rapidly and in large quantities, there were no symptoms, no destruction of red blood corpuscles, no hæmaglobinuria, but there was some albuminuria.

Dog's serum in small quantities injected rapidly into the veins of rabbits caused death in very short time by respiratory failure. When injected slowly they were able to withstand large quantities, some recovering with no symptoms, others dying several hours later in convulsions. In none were there found any ante-mortem clots in the heart. Most of the cases did not show any marked change in the number of corpuscles. Even some of the fatal cases did not show any change in the corpuscles. In a few instances there was produced a destruction of red blood corpuscles and hæmaglobinuria. Albuminuria always follows. The subcutaneous injection produced no symptoms and only once produced marked destruction of red blood corpuscles with hæmaglobinuria.

Horse's serum did not seem toxic even when introduced rapidly and in large quantities into the veins of rabbits. There was a slight diminution of red blood corpuscles with albuminuria.

From these experiments it would seem that the toxicity of blood serums is not dependent on their globulicidal action.

There was no constant alteration either in the number or kind of leucocytes. The variations following the injections were no greater than can occur in health. When there was a diminution in the number of leucocytes there was a great reduction in the multinuclear form giving rise to a relative increase in the number of lymphocytes. This was seen in rabbits injected with serum of the dog.

When an increase in the number of leucocytes occurred it was caused by an increase in the multinuclear form.

LABORATORY OF EXPERIMENTAL PATHOLOGY,
UNIVERSITY OF PENNSYLVANIA.

—o—

No. 356.

THE ABSORPTION OF IRON IN THE ANIMAL BODY.

BY A. B. MACALLUM,
Professor of Physiology, University of Toronto.

The author's observations on the distribution of iron in the animal and vegetable cell have resulted in determinings that the chromatin of every species of cell is an iron-holding compound, and that this substance gives origin to the hæmoglobin in the animal body. It follows from this that the iron of inorganic preparations in the food, if it is assimilated at all, must go directly to the formation, not of hæmoglobin, but of chromatin—a conclusion which necessitates a revision of the commonly accepted views as to the physiological relations of iron, and which at the same time suggests two interdependent questions: (1) Is chromatin formed in the animal body, or is it formed in vegetable organisms only? (2) What is the true explanation of the beneficial effects of the administration of iron salts?

In an attempt to answer these questions, various compounds of iron have been administered to animals (guinea pig, rabbit) in order to determine by micro-chemical and histological methods their action in the intestine. The investigation has yielded results which may be summarized thus:

(1) The chloride, phosphate and sulphate of iron and certain organic preparations of iron are absorbed by the epithelial cells of the villi and by the siderophilous cells surrounding the lacteal vessels.

(2) When given in large doses, certain preparations of iron have, upon the absorbing elements, especially the siderophilous cells, an effect similar to chemotaxis.

(3) The absorption of iron compounds occurs chiefly in the upper and middle portions of the small intestine.

The beneficial effects of the administration of iron in anæmia may, in large part, be explained on the view that iron salts increase the absorptive activity of the intestinal mucosa. Other investigations on the absorption of chromatin tend to support this view, and to indicate that inorganic and albuminate compounds of iron are not assimilated in the animal body, or, in other words, iron-holding nucleo-albumins are products of vegetable metabolism only.

The bearings of these observations on the pathology of simple anæmia and chlorosis and on the subject of nutrition is discussed at length in the original paper.

No. 357.

FUNCTIONAL DISTURBANCES CAUSED BY HEAT.

By Dr. J. B. de Lacerda,
Rio Janeiro, Brazil.

Experiments commenced some years ago with the lamented Dr. Couty. The experiments of Cl. Bernard were too artificial. We have not made use of stoves, but have been in a position to employ natural heat. In Rio, during the summer, we often have temperatures varying between 30° and 36° C. The action of the heat is increased by the hygrometric saturation and the prevailing calm of the air.

Under these circumstances there is a considerable exhaustion of muscular energy; the nerve energy is in abeyance; the secretions of the skin are enormously increased; the kidneys are slow, and the brain slumbers.

Experimenting on the lower animals between the temperatures of 30° and 35° C., we have always found the arterial tension very low, varying between 12 and 15 c. c. of mercury, while in winter it reached 19 and 21. We have thought that the fall was due to two factors, namely, a dilatation of the vessels, and cardiac weakness.

The nerves were found not to respond after a few electrical excitations unless a sufficient time of rest was allowed.

Dogs exposed directly to the sun, if kept immovable, perish in fifty minutes. At first there are signs of excitation, cardiac and respiratory acceleration, contracted pupils, salivation. This condition lasted about fifteen minutes, and was followed by cardiac weakness, dilated pupils, dryness of the mouth, and arrest of respiration at times. When the rectal temperature reached 44° C., death was imminent, and was the result of arrest of respiration, the heart continuing to beat for a few seconds.

Immediately after death we could demonstrate the loss of muscular contractility, at least in the respiratory muscles and the heart. The blood was dark, rather fluid. There were hæmorrhages into the endocardium and in the lungs. There were minute petechiæ of the skin, and at times considerable suffusion.

The circulatory changes above mentioned must bring about, as secondary results, a slowing of the processes of absorption and of metabolism.

It is easy to perceive how these secondary conditions may concur to aggravate certain pathological states in the warm climates, and how they may give rise to a slow absorption of medicinal agents.

——o——

No. 358.

AUTOMATISM IN NERVE CENTRES.

By Samuel Wolfe, A. M., M. D.,
Clinical Professor of Nervous Diseases in Medico-Chirurgical College, Philadelphia (formerly Professor of Physiology).

The so-called stage of rest in any physiological unit should be considered when regarding its total functional activity.

This stage in the nerve cell must be continually influenced by impressions on the peripheral nerve endings sending impulses over fibres, which impressions arise in the external world, within the body from similar causes, and as the result of metabolic processes in the various tissues.

The intimate connection by fibres, of all the nerve cells, make it probable that no function of the cell is independent of impressions arising outside of the immediate cell concerned, hence not automatic in any absolute sense.

A stability which prevents activity independent of excitation transmitted through a fibre is essential to the normal condition of most of these cells, and most probably of all of them.

—o—

No. 359.

THE PROTEOLYSIS OF CRYSTALLIZED PHYTO-GLOBULIN OR VITELLIN.

By Dr. R. H. Chittenden,
New Haven, Conn.

In any exact study of the relationship between the various products resulting from ordinary proteolytic action and the proteid undergoing digestion, the purity of the mother-proteid must first be assured. Obviously, the colloidal or amorphous character of ordinary proteids is a great obstacle to chemical purity. In crystallized phyto-globulin, however, we have a form of proteid matter, the crystalline character of which offers a comparatively easy means of insuring reasonable purity. Hitherto, the great difficulty attending the preparation of large quantities of these crystalline proteids has been a barrier to their wide-spread use in digestion experiments.*

The present series of experiments has been made with the crystallized globulin or vitellin from hemp-seed, which can be readily prepared in large quantities and in the form of beautiful octahedra, with well-defined edges. The globulin is readily digestible in artificial gastric juice (pepsin-HCl), yielding the ordinary forms of proteose and peptone, and it has been the main object of the present study to ascertain as fully as possible the characters and chemical composition of the various products resulting from the digestion of this pure proteid with carefully purified pepsin-hydrochloric acid. This has seemed especially important in view of the fact that a still more exact method of separating the last traces of deuteroproteose from true peptone has recently been devised†, thus making it very desirable to again study the properties and composition of a true and pure peptone, entirely free from adherent proteose.

In one digestion with pepsin-hydrochloric acid (seventy-two hours at 40° C.) products of the following composition‡ were separated:

	C.	H.	N.	S.	O.	ASH.
Phytoglobulin or vitellin	51.63	6.90	18.78	0.90	21.79	0.56
Protovitellose	51.55	6.73	18.90	1.09	21.73	0.17
Mixed vitelloses	50.85	6.68	18.94	1.10	22.43	0.49
Deuterovitellose	49.78	6.73	17.97	1.08	24.44	1.26
⁂Peptone	49.40	6.77	18.40	0.49	24.94	2 58
⁂Antivitellid	50.18	6.50	14.74	—	—	2.41

While the reactions of a given vitellose are essentially the same under all circumstances. its composition is liable to vary somewhat with the length and intensity of the proeolytic action, This adds weight to the theory that there may be two or more proto or deuteroproteoses or vitel-

*Two series of experiments have, however, been previously made; *Ueber Vitellosen*, R. Neumeister, *Zeitschr. y Biol.*, Bd. 23, p. 402, and *Crystalline globulin and globuloses or vitelloses*, Chittenden and Hartwell. *Journ. Physiol.*, vol. 2, p. 435.

†*Zeitschr. f Biol.*, Bd. 29, p. 2.

‡Calculated ash free.

⁂Mixed products from two distinct digestions.

loses, representing different stages of hydration, possessed of essentially the same general reactions, but variable in composition. In any event, we have in the above table a confirmation of the many results obtained in the digestion of animal proteids, all of which point to the conclusion that the proteolytic process, considered from a chemical standpoint, consists of a series of successive changes mostly hydrolytic in their nature. The most marked evidence of the gradual chemical change accompanying long-continued proteolysis is the pronounced diminution in the content of carbon of the successive products; thus, peptone always contains, as in this case, two to three per cent less carbon than the original proteid from which it is derived, while the primary and secondary proteoses usually show a content of carbon midway between the two, proportional to the extent of the proteolytic change from which they have resulted.

The specific rotation of the original globulin dissolved in a ten per cent solution of sodium chloride is $(a)_D$—53.8°. The vitelloses, however, are as a rule possessed of a somewhat higher rotary power, although the pure peptone has a rotation of only $(a)_D$—47.3°.

Vitelloses and peptone were also prepared by the action of alkaline trypsin solutions, although the globulin proved considerably more resistant to the action of this ferment than to pepsin.

For further details of the work, together with a fuller description of the result obtained reference must be made to the complete paper.

—o—

No. 360.

INNERVATION OF THE VENA PORTAE.

By Franklin P. Mall, M.D.,
Chicago, Ill.

It has been known for a long time that when the splanchnic nerve or cervical spinal cord is irritated the arterial pressure rises. During the irritation of these nerves it has also been noticed that the smaller arteries of the mesentery as well as others contract. The mechanical explanation of the rise of the arterial pressure was therefore quite simple.

When the volume of the blood in the arteries as well as that thrown from the ventricle is taken into consideration it is at once seen that the simple contraction of some of the smaller arteries is not sufficient to explain the rise of arterial pressure after splanchnic irritation. It has been found that when the aorta is tied just below the left subclavian artery (and the femoral artery opened to prove that the arterial pressure is reduced to zero) irritation of the splanchnic nerve causes a decided rise of pressure in the carotid artery. Moreover, it is found that with the aorta open or closed splanchnic irritation causes an increase flow of blood to and from the heart, thus showing us that the real cause of arterial pressure is due to an increased amount of blood being thrown into the aorta. A similar rise of pressure can be produced by injecting a quantity of fresh blood either into the jugular vein or into the carotid artery. In a dog of average size splanchnic irritation causes an increase of about 100 c. c. of blood to be thrown into the aorta. Transfusion of the same quantity from another animal causes an identical arterial curve.

The first and most important experiment is the proof that when the splanchnic or the cord is irritated, the vena port contracts, often completely emptying its lumen altogether. That this is not primarily due to a contraction of the smaller mesenterie arteries is proved by the fact that the contraction of the vein is most marked when the pressure in the abdominal aorta

is reduced to zero. Moreover, with the aorta open and the vena portæ closed, it is quite easy to cause the portal pressure to exceed that of the arterial by splanchnic irritations. We, therefore, conclude that the rise of arterial pressure, after splanchnic irritation, is due in great part to an increased quantity of blood being thrown from the heart; this in turn is caused by the contraction of the veins, and especially the vena portæ and its branches. (See *Archiv. für Anat., und Physiol., Paynol, Abt.*, 1892.)

In the demonstration to be made a ligature staff is applied to the aorta just below the origin of the left subclavian, and on the splanchnic is armed with an electrode. The portal vein is exposed and after the artery is closed the splanchnic is irritated. The portal vein will contract and the arterial blood pressure will rise.

—o—

No. 361.

THE PHYSIOLOGICAL BASIS OF THERAPEUTIC ACTION. AN EXPERIMENTAL INQUIRY.

By Thomas J. Mays, M. D.,
Philadelphia, Pa.

Every phenomenon in nature becomes intelligible only when considered in the light of force. Any scientific system of therapeutics must, therefore, be built on a broader basis than that of the mere drug action on the animal economy. The fireman looks upon the coal with which he feeds his engine as the ultimate source of heat, while the philosopher regards the same material as a store-house of force which has been gathered by the sun, and is but a part of the force which pervades the universe. Heat affects the body differently in accordance with the quantity which is applied. In small quantity it enhances, and in large quantity it suppresses organic action, and in excessive quantity it destroys tissue. A disconnected view of the effects would seem to show three different properties in heat, while really these three different phenomena are varying effects of one property or one force applied in varying quantities.

Experiment shows that many of our therapeutic agents have a similar action in small and large doses—in the former they exalt, and in the latter they depress vital action. Further experimentation shows that small doses are directly antagonistic to large doses, *i. e.*, small doses will overcome the depressant action of large doses. If, instead of large drug doses, we substitute the action of morbid forces, we have a picture before us as to the manner in which drugs combat disease, viz., by interference.

Figures. Showing the action of small and large drug doses, and the antagonism of the same.

To comprehend this principle of interference we must realize that all the textures of the animal body are in a state of continual molecular motion, and that so long as the molecular motion of each texture harmonizes with that of every other health is the resultant. Disease arises when a perturbation occurs among these. This molecular motion is maintained first, by substances, like food, which undergoes chemical change in the body; and, second, by force, like heat, friction, which act aggressively. Drug action falls under the latter classification. The idea that our drugs are like forces also explains their elective affinity. The fundamental principles of drug action, therefore, resolve themselves into (1) stimulant effects of small doses; (2) depressant effects of large doses, and (3) elective affinity. From this it follows that we have stimulants and depressants of every special organ and function; as of the general nervous

system, and of special parts of the same, of the heart, lungs, intestines, liver, kidneys, skin, etc., which demonstrates that the old grouping of the action of drugs into stimulants, tonics, narcotics, expectorants, emetics, cathartics, cholagogues, diuretics, diaphoretics, etc., is the only scientific and natural classification.

—o—

No. 362.

SOME OBSERVATIONS ON THE NORMAL GROWTH AND MUSCULAR DEVELOPMENT OF THE HUMAN BODY UNDER SYSTEMATICAL EXERCISES.

By H. G. Beyer, M. D.,
Annapolis, Md.

This paper discusses some of the results of gymnastic exercises, as obtained by two successive measurements from a number of naval cadets. The items forming subjects for special consideration are the height, weight, lung capacity, vital capacity and total strength, and the change observed in these after a course of six months training in the gymnasium.

—o—

No. 363.

NOTES ON METHODS OF TEACHING PHYSIOLOGY IN THE LECTURE-ROOM.

By W. Gilman Thompson, M. D.,
Professor of Physiology, Medical Department of the University of the City of New York.

In the larger medical schools physiology is mainly taught in the lecture-room, before audiences of several hundred students whom it is neither practicable nor desirable to admit to wholesale individual experimentation upon the lower animals. The object of this paper is to emphasize the usefulness of such demonstrations as may be adapted to exhibition before large audiences and to invite discussion upon the methods suggested. The subject is divided under the headings:

I. Animal experimentation in the class-room, its value, limitations, etc.

II. Models and apparatus; description of new materials used; construction and employment of "working" models to illustrate mechanism, etc.

—o—

No. 364.

HIBERNATION AND ALLIED STATES IN ANIMALS.

By Wesley Mills, M. A., M. D.,
Professor of Physiology in McGill University, Montreal, Canada.

I. After citing the views usually held in regard to hibernation in the cold-blooded animals and in certain vertebrates, an account is given of the study of two specimens of the American marmot or woodchuck (*Arctomys monax*), for a period of five years.

From these investigations the following conclusions relating to this creature in confinement are drawn:

(1) There was annually in its life a period characterized by drowsiness, sleep or profound torpor, at different times, and lasting from about November to April.

(2) A period of perfect wakefulness immediately following, during which the animal was emaciated, in poor coat and with a generally low vital capital, lasting some weeks.

(3) A period of improving condition, with good health and a desire to get free, which latter was also noticeable in the preceding period but to a less degree.

(4) A period of maximum weight and vigor, with perfect coat and an abundance of fat.

The marmot on a study of which these conclusions were based was under observation continuously for four years. Another specimen has been kept under similar conditions for two years, and has shown no tendency to hibernate.

Then follows an account of certain cases of human hibernation or allied condition, one of which is reported with minute details.

II. The second part of the paper is occupied with a discussion of the nature of the phenomena reported in the first part.

It appears that all forms of profound winter (or summer) sleep are protective, and that this alone has prevented the extinction of several groups of animals.

All study thus far given to sleep, hibernation, etc., seems to justify the conclusion that every degree of diminution of functional activity will be found represented from the normal sleep of man and other animals to the lowest degree of activity consistent with the actual maintenance of life.

——o——

No. 366.

THE NUMBER OF THE RED GLOBULES.

By Dr. Jose G. Hernandez,

Profesor de la Universidad de Caracas.

The classical works on physiology fail to mention the influence of latitude upon the number of red corpuscles. The author has endeavored to study this question in the tropics. He started to find the physiological mean of the number of red corpuscles in the inhabitants of Caracas. The latitude of the city and elevation above sea level are given. Healthy individuals, medical students between the ages of sixteen and twenty years, were chosen. Twenty-five counts were made with the apparatus of Nachet. The mean obtained per cubic millimetre was of 3,247,000. The minimum was 1,900,000, and the maximum 3,840,000.

The amount of urea secreted in twenty-four hours was also investigated in six cases, obtaining a mean of twenty-one grammes, with extremes of fifteen and twenty-five grammes.

This olygocythœmia is explained by the theory that the function of the red blood cells is respiratory, and that the process of oxidation is necessary to keep up the bodily temperature, a function that must be less active where the surrounding temperature is uniformly high. The diminished oxidation of the tissues results in a diminished secretion of urea.

The statement, often repeated, that the climate of the tropics is a producer of anoœmia, is thus confirmed.

No. 367.

MUSCULAR FORCE OF THE INDIAN.

By Dr. J. B. Lacerda,
Rio Janeiro, Brazil.

It is generally admitted that the Indians are possessed of great muscular force. During the anthropological exposition at Rio Janeiro, in 1882, we had representatives of the different tribes in the National Museum. Experiments made with the Botocudos and the Cherentes show that they possess a mean of muscular strength inferior to that of the white or the negro race. The strongest Indians never reached above 120 in Mathieu's dynamometer.

As to muscular development, the superiority of the negro is at once apparent. As to the agility, we find the Indians to be slow, if we except certain habitual movements, such as the handling of the bow and arrows. We have no doubt that the other races would easily outrun the Indians. Their musical ear is very dull. They are lazy even when in danger, and trust more to acuteness than to their courage.

——o——

No. 368.

THE RESPIRATORY CENTRE IN THE MEDULLA OBLONGATA.

By J. Gad, M. D.,
Physiological Institute, Berlin, Germany.

In 1891 and 1892 I was able to show, in collaboration with Marinescu, that the formatio reticularis of the medulla oblongata in rabbits, dogs and cats is endowed with functions such as we should expect in a respiratory centre sending out rhythmical inspiratory impulses.

The region in question cannot be one of the narrowly circumscribed areas mentioned by Gierke, Mislawsky and Hohn, for after very slow and cautious destruction of all these spots with nitrate of silver or hot glass beads the respiration is only temporarily suspended (inhibition stimulus). On the contrary, the respiration was permanently stopped when a sufficiently large portion of the formatio reticularis or the noeud vital of Flourens was destroyed. Circumscribed electrical stimulation with fine needle electrodes, varnished to near the point, caused, when the needles were thrust in the noeud vital, only an increase of the tonus of the diaphragm, while the same stimulus, applied to the formatio reticularis, quickened and deepened the respiration. These observations show: (1) That the noeud vital (in the historical sense of the phrase) is only a point in the nerve path from the respiratory centre to the spinal centres for the muscles of respiration; and (2) that the nerve cells which automatically govern the respiratory rhythm are themselves placed in the formatio reticularis.

The above results were laid before the Physiological Society in Berlin, October 23, 1892. Since then, in co-operation with Arnheim, I have been able to determine that the respiratory centre in the formatio reticularis of the rabbit is a pre-ordinating centre, by which is meant that the co-ordination of the individual muscles of respiration is not accomplished through paths which carry the stimulus of one motor centre directly to another (as Exner and Grossmann think), but, on the contrary, the collaboration between the nucleus facialis and the spinal centres for muscles of respiration is brought about only through the intervention of the pre-ordinating centre in the formatio reticularis. The circumscribed electrical stimulation of the latter causes an alteration in the rhythm and depth of thoracic and nasal breathing, and the changes are both of the same character, as simultaneous registration shows.

On stimulating in the region between the nucleus facialis and the formatio reticularis, an alteration of the nasal breathing alone is seen, while on stimulating distal to the formatio reticularis only an alteration in the thoracic breathing (excepting a general sensory reaction) is observed. Unilateral stimulation of the areas in the mid-brain, which Martin, Booker and Christiani have called respiratory centres, gives an alteration of the same character in the respiratory movements of the thorax and the opposite half of the nose, and this alteration ceases when an incision is made between the nucleus facialis and the formatio reticularis; from which it follows that the path to the nucleus facialis turns out of its direct course and runs through the formatio reticularis.

——o——

No. 369.

THE ANALYSIS OF THE GASTRIC JUICE FOR SOME DISEASES OF THE STOMACH.

By Hugh Hamilton, M. Sc., M. D.,
Harrisburg, Pennsylvania.

I. A method of analysis.
II. Made at different periods after meals.
III. What it teaches.
IV. Its practical results.
Illustrated with diagrams.
Time, twelve minutes.

——o——

No. 370.

A MICROSCOPICAL STUDY OF THE LIVING NERVE CELL DURING STIMULATION.

By C. F. Hodge, Ph.D.,
Assistant Professor, Physiology and Neurology, Clark University.

Up to the present series of experiments my work upon the nerve cell has been confined to observing the changes due to electrical stimulation or to daily fatigue in the cell after it has undergone the usual methods of preparation for the microscope. From the beginning it has been my desire to study the nerve cell continuously during the process of fatigue.

METHOD.

Of a pair of spinal or sympathetic ganglia quickly excised from a freshly pithed frog the right is placed in a drop of salt solution upon one of the "stimulating stages" to be presently described, the left, upon the other. The "stimulating stages" are made by looping up the two fine platinum wires, which serve as tips to electrodes of an ordinary DuBois-Reymond coil, through needle holes in a thin piece of glass so that about two millimetres of each wire is exposed upon the upper surface of the glass and the wires lie about two millimetres apart. This glass plate is mounted over a hole in a hard rubber disc of such size as to be conveniently clipped to the stage of a microscope. The ganglia are arranged so that the nerve of each lies on the electrodes and, the specimens being placed each under a microscope, a cell, or group of

cells in each, which can be plainly seen, is found and brought to the centre of the field. Cells as near alike as possible are of course sought out. Now with the microscopes side by side, with similar nerve cells of the same animal under each, electrical stimulation is applied to one, while the other remains at rest; and both are observed, measured and drawn (with the camera) from time to time. A flow of sterilized salt solution was maintained under the cover-slips by means of capillary glass syphons supplied from the same reservoir. Stimulation was interrupted, fifteen seconds' work alternating with forty-five seconds' rest, the primary current being made and broken by a "Lombard clock interrupter." Four Daniels' cells, supplying current of .5 ampere were used throughout. At the end of desired time both control and stimulated ganglia were hardened in osmic acid and teased in glycerine for further study.

RESULTS.

It has been planned to have the experiments fall into two series, a summer and a winter series. The winter series, consisting of ten experiments, was completed between November 24 and December 24, 1892. Of the summer series four experiments have been completed at the writing of this abstract. It is intended to add about fourteen more during the summer.

The chief result of the experiments so far is that the nucleus shrinks when stimulated under these conditions more rapidly than when the ganglion remains in the animal's body. This decrease in size is rapid at first, then slower and more rapid again, as observed in a previous set of experiments; but the slowing up at no time amounts to a stand-still or to partial recovery. The controls shrink a very little, 3 to 8 per cent, as compared to 60 to 73.7 per cent in the nuclei of the stimulated ganglia.

Granules and oil droplets have been seen to disappear from the cell-protoplasm during stimulation.

Stimulation has been continued as long as six days and nights, but active changes cease to be visible after the first five to six hours.

With too severe stimulation the cells may show little or no change. The most definite results were obtained with the secondary of a Krüger coil (10305 u.) at from 10 to 13 cm. With the secondary coil at 0, no change in the cells was visible. Motile protozoa, vorticella and paramœcium, were almost instantly killed with this strength of current; whereas they were apparently uninjured when the secondary coil was removed to 10 cm.

——o——

No. 371.

CHANGES IN GANGLION CELLS FROM BIRTH TO DEATH FROM OLD AGE.

By C. F. Hodge, Ph. D.,
Assistant Professor Physiology and Neurology, Clark University.

In previous experiments, where it has been necessary to compare ganglion cells of one animal with those of another, special care has been taken to use animals of as nearly the same age as possible. This has been done under the supposition that age might materially influence the appearance of the cells.

Certain histological features have been observed to occur quite frequently in nerve tissue taken from the aged. The most common of these is sclerosis. For the ganglion cell itself increase of pigment has also been noted. Both of these characteristics, together with the

numerous forms of degeneration which have been described for nerve tissue, are often met with in various pathological conditions. It is with special reference to age changes within the nerve cell itself that the present research is begun.

The material which has been of most service, so far, is the first cervical ganglia of a fœtus of full term, male, and of a man dying of old age at ninety-two. The death of the fœtus was due to an accident during birth; that of the man was caused by gradual decay accompanying old age, and not complicated by disease of any sort. The ganglia were hardened, one of each pair, in osmic acid and corrosive sublimate, embedded side by side in paraffine, cut together and stained together on the slide. We thus have, side by side, and prepared in the same way, similar cells at birth and at ninety-two years of age. And the question now is—What changes have the ninety-two years of life and activity wrought in the cells?

The first difference to be noted between the ganglia is one of size, the ganglion of the old man being, by measurement, 105 times larger in bulk than that of the fœtus. This increase in size is seen from the sections to be due chiefly to sclerosis, the old ganglion consisting practically of a knot of connective tissue, in which are sparsely scattered small groups of nerve cells and fibres.

In the cells themselves the most striking difference is the almost complete absence of nucleoli from the ganglion cells of the old man. Coupled with this is the extremely shrunken condition of the nuclei. The cells in this instance are largely filled with pigment and fat, both substances showing black in osmic acid specimens, the pigment being yellow and the fatty masses being represented by large vacuoles in sections by the corrosive sublimate method.

Careful measurements and estimates of pigment are given in tables. Similar changes are not found in the brain cells.

——o——

No. 372.

IN WHAT WAY DOES ATROPIN ELEVATE THE TEMPERATURE?

By Isaac Ott, M. D.,
Easton, Pa.

In this paper I shall show that the elevation of temperature is not spinal but cerebral in origin and probably partly due to an action upon the medulla oblongata.

——o——

THE RELATION OF THE NERVOUS SYSTEM TO HEAT PRODUCTION.

By Isaac Ott, M. D.,
Easton, Pa.

The aim of this paper will be to show by experiment, both thermometric and calorimetric, that the action of the nervous system is mainly thermotoxic.

PRELIMINARY REPORT UPON THE ACTION OF SOME METALLIC SALTS.

By Isaac Ott, M. D.,
Easton, Pa.

This paper consists of a series of experiments upon the circulatory apparatus with lanthanum, thorium, ittrium, neodymium, praeseodymium and zirconium. It will try to show that they are all cardiac depressants.

——o——

No. 373. How does Atropin Elevate the Temperature," by Isaac Ott, M. D., Easton, Pa. [Abstract.]

——o——

No. 374. "The Physiological Action of Lanthanum, Thorium, Ittrium, Praseo-digmium, Neodigmium and Zirconium. Preliminary note. By Isaac Ott, M. D., Easton, Pa. [Abstract.]

SECTION ON DISEASES OF CHILDREN.

HONORARY PRESIDENTS

Dr. S. S. Adams, Washington; Dr. A. D. Blackader, Montreal, Canada; Dr. Sam'l C. Busey, Washington; Dr. Charles Warrington Earle, Chicago; Dr. F. Forchheimer, Cincinnati; Dr. L. Emmet Holt, New York; Dr. A. V. Meigs, Philadelphia; Dr. W. P. Northrup, New York; Dr. J. O'Dwyer, New York; Dr. C. I. Putnam, Boston; Dr. T. M. Rotch, Boston; Dr. J. Lewis Smith, New York; Dr. Louis Starr, Philadelphia; Dr. J. E. Winters, New York; Dr. Jesus Valenzuela, City of Mexico, Mexico; Dr. I. N. Love, St. Louis, Missouri.

EXECUTIVE PRESIDENT:

Dr. John M. Keating, Colorado Springs, Colorado.

SECRETARIES:

Dr. F. M. Crandall (English-Speaking), No. 113 W. 95th St., New York, N. Y.	Dr. Damaso Lainé (Spanish-Speaking), Media, Pa.

Dr. Larguia [Viamont 332]	Buenos Aires	Argentine Republic.
Dr. Enrique Hertzog	La Paz	Bolivia.
Dr. Carlos A. Moncorvo de Figueredo	Rio de Janeiro	U. S. of Brazil.
Dr. Antonino Gómez Calvo [Carrera 5 Núm. 92]	Bogota	Republic of Colombia.
Dr. Joaquin L. Dueñas [San Miguel 75]	Havana	Cuba.
Dr. Domingo Alvarez	Guatemala City	Guatemala.
Dr. Saint Leger-Perrier	Port au Prince	Haiti.
Dr. F. L. Miner	Honolulu	Hawaii.
Dr. Andres Lopez Martinez	Tegucigalpa	Honduras.
Dr. Ramón Icaza [Ratas 9]	City of Mexico	Mexico.
Dr. Carmen Bengochea	Managua	Nicaragua.
Dr. Pedro Castro [18 de Julio 422]	Montevideo	Uruguay.
Dr. Luis A. Ibarra	Caracas	Venezuela.

SECTION ON DISEASES OF CHILDREN.

No. 401. "The most Successful Method of Treating Croup," by JOSEPH O'DWYER, M. D., New York City, N. Y.

[Abstract not furnished.]

—o—

No 402. "The Teaching of Hygiene in Colleges and Public Schools," by F. FORCHHEIMER, M. D., Cincinnati, O.

[Abstract not furnished.]

—o—

No. 403. "Clinical Aspects of Infant Feeding," by E. P. DAVIS, M. D., Philadelphia Pa.

[Abstract not furnished.]

—o—

No. 405. "General Principles Underlying all Methods of Infant Feeding," by T. M. ROTCH, M. D., Boston, Mass.

[Abstract not furnished.]

—o—

No. 406. "The Time and Mode of the Introduction of the Exotic Diseases of Children into America," by J. LEWIS SMITH, M. D., New York City, N. Y.

[Abstract not furnished.]

—o—

No. 407.

PHYSICAL TRAINING OF PUBLIC SCHOOL CHILDREN.

BY J. GARDNER SMITH, M. D.,
New York City.

The training of the body and mind by mechanical means is emphasized by the university, the college, the seminary, and the prison, but the public school children till quite recently have been allowed to grow up with little or no attention to bodily development.

Need.—The need of such training is apparent, both as a hygienic and a pedagogic measure.

Pedagogic.—The voluntary muscles contain perhaps one-quarter of the blood in the body and through their activity a large proportion of the potential energy of the body is

changed into work and heat. This energy stimulates the growth of both mind and muscle. As a result we have quicker perception, better judgment of external objects and distances, better co-ordination of muscles, and a brighter mind.

Hygienic.—From an examination of upwards of 2000 children during the past two years we note faulty sitting and standing position, lack of control of thoracic muscles; a chest expansion of boys, 1.1 inches; of girls, .9 inch, with a small amount of complemental air and reserve; scoliosis in boys, 10 per cent; in girls, 10 per cent. After eight months' exercise, boys' chest expansion was 1.9 inches; in girls, 1.8; scoliosis improved except in two cases.

System.—The system pursued should meet the demands, hygienic, educative and recreative. It should be a broad system comprising the physiological and progressive arrangement of Professor Ling, the grace and beauty of expression of Delsarte and the interest and recreative element of the German work.

Teacher.—The teacher should be familiar with all the so-called systems, but more than this, with the human body in health and disease, being able to examine the scholars and adapt the exercises to their needs.

Method.—Exercises permissible in school may be classified as follows:

Training in sitting position; training in standing position; training in breathing, upper thoracic, lower thoracic and diaphragmatic; marching, running, hopping, skipping and jumping; calisthenic exercises (without apparatus); light gymnastic exercises (with apparatus); dumb-bells, wands, bar-bells, rings, Indian clubs, etc.; heavy gymnastics—horse, buck, parallel and horizontal bars, vaulting, ladder, rings, etc.; games—innumerable games, especially in spring and fall, with much of the other exercise should be done out of doors.

Room.—Assuming that we have a gymnasium or a room well ventilated with 200 cubic feet of air space for each individual, and most modern adjustable desks and seats, there are innumerable groups of exercises which may be done by the scholars as often as every half hour at least.

Position.—Motion is one of the means of rest to the growing child. He should not be restrained in any one position more than five or ten minutes, or allowed to assume attitudes tending to deformity.

Calisthenics.—Exercises in a sitting position may be alternated with risings, facings, marchings, and calisthenics at intervals, from one to five minutes at a time. Much attention should be given to the "position of the soldier," and to the training of the chest and the various breathing exercises.

Gymnastics.—As Dr. Lincoln remarks, in Dr. Keating's Cyclopedia "Calisthenics lack one essential element, they do not call for exertion to overcome resistance," neither do they furnish the desired recreation that is enjoyed in light and heavy gymnastic exercise.

Games.—Of course the element of fun is greatest in the so-called "games." They should not, however, be carried to fatigue during study hours, but are extremely profitable as recreation and exercise.

Graded drills.—The following is a classification of the graded drills used in the New York City schools to June 30, 1893.

In the grammar departments:

First Grade, advance Indian club drill, No. 1.
Second Grade, advanced bell-bar drill, No. 1.
Third Grade, wood dumb-bell drill, No. 1.
Fourth Grade, bell-bar drill, No. 2.
Fifth Grade, wood dumb-bell drill, No. 2.
Sixth Grade, short wand drill, No. 1.
Seventh Grade, wood dumb-bell drill, No. 3.
Eighth Grade, calisthenic dumb-bell drill, No. 4.

For the primary departments:

First Grade, Indian club drill, No. 2.
Second Grade, anvil chorus dumb-bell drill.
Third Grade, short wand drill, No. 2.
Fourth Grade, wood dumb-bell drill, No. 5.
Fifth Grade, ring drill, No. 1.
Sixth Grade, calisthenic drills, Nos. 1 and 2.

How taught.—The director of physical training should visit each school at intervals, reviewing the past and explaining some new exercise. The plan has worked well in New York, each teacher instructing his or her own class. There is a great demand for physical training, and members of this congress can do much to make the introduction and progress successful and beneficial.

With printed and illustrated drills.

—o—

No. 408. "Palmus," by LANDON CARTER GRAY, M. D., New York City, N. Y.

[Abstract not furnished.]

—o—

No. 409. "Enteroclysis in Intestinal Diseases of Children," by EDWIN E. GRAHAM, M. D., Philadelphia, Pa.

[Abstract not furnished.]

—o—

No. 410.

BACTERIOLOGICAL DIAGNOSIS OF DIPHTHERIA.

BY HAROLD C. ERNST, M. D.,
Boston, Mass.

(1) A brief consideration of our present knowledge of the etiology of the disease.

(2) The necessity for a distinction between the diphtheria produced by the Klebs-Loffer bacillus and pseudo-diphtherias, the result of the activity of other bacteria and closely resembling it clinically.

(3) Emphasizing the fact than a differential diagnosis can only be made by bacteriological examination.

(4) Showing how this may be done.

No. 411. "Aphasia in Children," by FREDERICK PETERSON, M. D., New York City, N. Y.
[Abstract not furnished.]

—o—

No. 412. "Studies in Infant Feeding," by HENRY DWIGHT CHAPIN, M. D., New York, N. Y
[Abstract not furnished.]

—o—

No. 413. THE RACE FACTOR IN DISEASE.

By J. WELLINGTON BYERS, M. D.,
Charlotte, N. C.

Investigation in regard to the nature and influence of the contributory or predisposing conditions of disease demonstrate the fact that race with its concomitants and peculiarities of tissue and structure possesses and exercises an important modifying effect upon both the advent and type of morbid phenomena.

A gross comparison of the physiological characteristics of the white, yellow and black races suggests a higher and a lower form of organization, though variations in skin, hair, size and shape of skull and face do not afford an explanation of these diversities of disease and we must pass beyond these to still finer and more subtle peculiarities of tissues or ceils as the ultimate causes. Recent developments in relation to the questions of immunity demonstrates that the vulnerable state is our partaking largely of cell incompetence, and exemption from infectious agencies depends upon cell actions and products. Such being true we must conclude that the factor of race carries with it certain inherent peculiarities of cell powers which control and modify disease processes. In saying this we must not be understood as implying that these conditions are themselves incapable of modification, for we know that climate, class, occupation, habitation and mode of life will each and all cause a fluctuation in these inherent conditions; still these qualities which exist by virtue of race are always more or less evident, and no amount of perturbing influences will completely and entirely suppress them. Hence it is the Anglo-Saxon people show unusual tendency to scrofula and consumption and to diseases allied to these in character; the negro is exempt largely from malaria, scarlet fever and yellow fever, and the Semitic people are prone to cancer and melancholia, though exempt from contagious disease to a degree warranting the idea that they possess a charmed life.

—o—

No 414. THE TREATMENT OF EMPYAEMA IN EARLY LIFE.

By H. BROTHERS, M. D.,
New York.

The structural differences in the chest walls of children and those of adults are sufficiently distinct to justify the separate consideration of empyaema as it occurs in childhood, especially in regard to treatment. From the standpoint of bacteriology new light has been cast on the pathology of empyaema, but its treatment has remained unaffected. Clinically the disease is divided into two groups of cases: (1) Acute or primary empyaema; (2) subacute or secondary empyaema. Regarding diagnosis, reliance

is chiefly laid on two signs: (1) The percussion note; (2) exploratory puncture. The prognosis of simple empyaema not operated upon is bad, one-third of the cases dying in eleven to sixteen days. Therefore operative interference is urgently indicated. A description of the various methods of treatment follows. Statistics by other operators are quoted.

Next follows a study of seventy-one operated cases of empyaema—twenty-one of which were done by the author and the remaining fifty gathered from the practice of a few friends.

The next table refers to the mortality at different ages.

Regarding sex, the disease occurred (in forty-nine cases) thirty-one times in male children and eighteen times in female children—nearly double as often in males. Both sides of the chest were equally affected.

The diagnosis was made as early as the third day or as late as six months. The youngest case operated in the list was seven months old.

The results of aspiration were unfortunate. Of eighteen cases, seven died, two recovered, and nine required subsequent operations (incision and drainage). Personally the author has only once resorted to aspiration in empyaema and that case died.

After simple incision with drainage, in forty-six cases in which the point was noted, the healing process required on the average a little less than seven weeks. The extremes varied between thirteen days and three months.

The complications noted embraced: lobar pneumonia of the same or opposite side, diphtheria, scarlet fever, measles, influenza, nephritis, laryngitis, post-pharyngeal adenitis, tuberculosis, scrofulosis, pyaemia, pulmonary œdema or empyaema of the opposite side.

The dangers attending operative interference include collapse during anaesthesia and emphysema about the wound; after the operation may follow uncontrollable coughing (due to pressure of tube), incessant vomiting, hyperpyrexia, erysipelas, sepsis, pyaemia.

Among the causes of death were shock, pneumonia of opposite lung, nephritis, exhaustion, acute gastro-intestinal catarrh, erysipelas, sepsis and pyaemia.

Preventive treatment consists in avoiding overcrowding in the tenements and observance of personal hygiene.

Regarding medicinal treatment, resort must be had to free stimulation and general symptomatic treatment.

The best operative treatment in the empyaemas of childhood consists in the method of *simple incision with drainage.* Under certain circumstances treatment by aspiration or rib-exsection is also indicated.

—o—

No. 415.

A CONTRIBUTION TO THE KNOWLEDGE OF ACUTE PRIMITIVE ENTERO-COLITIS DURING LOW INFANCY.

By Joaquin L. Dueñas, M.D.,
Havana, Cuba.

Clinic and demography show that in Havana, morbidity and mortality due to enteritis is as great as in any other city. Thirty-three per cent of children dead before their second year are the victims of acute diarrhea.

The etiological conditions that provoke them are:

(1) Infected condition, soil, air and water.

(2) Altered state of cow's milk.

The fermentation of milk is dependent on many a different cause: adulterations, heat, etc.

Clinical forms can be limited to two types, viz., cholera infantum and entero-colitis.

No relation is to be detected between morbid and etiological especificity, the same infectious agent, such as milk alterations, B. coli-commune, impaludism, etc., can provoke the same clinical type.

Etiological and clinical diagnosis will only be concordant when supported by ample and sufficient information, which are some of the resorts of clinical investigation, others consisting of laboratory researches, and anatomo-pathological considerations.

Infection of the intestine is the cause of entero-colitis of children. The analogies observed in termical evolution, symptoms and results of therapeutics, induce me to claim their identical nature. Comparative mortality observed in the sketches during the years 1888-92 is well adapted to maintain this position.

The principal forms of entero-colitis occurring in Havana are—the common form quoted by the authors, the gastric, the thoracic (severtre) and the cerebral; the remittent typhoidic and choleric varieties are also very frequent. Treatment is based in four capital indications: (1) Delivering the intestinal duct of matters residing in it. (2) Securing its antisepsy and the functional repose of the organ. (3) Reparation of organic waste. (4) Attacking of the symptoms and complications.

It is very important to find out the genesis of the disease from the beginning.

The medications which have afforded the best results are the following: first of all, calomel; secondly, antisepsy of the intestine, watery diet, alimentary hygiene; if paludism is to be supposed present, quinine may be administered; also, opium, alcohol, tonics, caphein, acids, alkalines, etc.

Baths, frictions, revulsions and other resources, whose application has great influence in the ultimate results, are not to be forgotten.

SYNOPSIS.

Male . . . . . 93 Female 62

	CASES.	MORTALITY.
	Lactated by their mother 41	7.32 per cent.
	Artificially nourished 114	21.93 "
Forms	Cholera infantum 12	66.00 "
	Entero-colitis 143	13.99 "

—o—

No. 417. "The Surgical Treatment of Empyema in Children," by JOHN B. DEAVER, M. D., Philadelphia, Pa.

[Abstract.]

No. 418. "The Production of Cow's Milk Designed for Infant Feeding," by HENRY L. COIT, M. D., Newark, N. J.

[Abstract.]

—o—

No. 419. "The Proper Mode of Preventing and Treating Diphtheria, Based on Recent Discoveries Relating to its Etiology and Pathology," by J. LEWIS SMITH, M. D., New York City, N. Y.

[Abstract not furnished.]

—o—

No. 420.

THE NORMAL PRAECORDIA IN INFANCY AND CHILDHOOD.

BY H. B. WHITNEY, A.B., M.D.,
Denver, Col.

It is is with great surprise that one finds how little careful attention has been paid to the normal praecordial dullness in infants and children. Weil says that up to the age of twelve or fifteen the praecordial dullness extends somewhat beyond the right sternal margin. Rotch states in his article in Keating that in infancy the praecordia has the same boundaries as in the adult, while from the second or third up to the eighth or ninth year there is frequently some dullness over the lower half of the sternum. Other authors are silent.

The subject is important, no less in children than in adults. A cardiac enlargement can only be determined when the normal limits at different ages are known. The diagnosis also of slight cardiac displacement, one of the most valuable signs of pleuritic effusion, depends upon an exact knowledge of normal conditions.

From a somewhat extended series of observations the writer has reached the following conclusions:—

In children up to the beginning of the sixth year, the relative dullness of the normal heart has practically the same limits as in the adult, namely, (*vid. Fig. 1*), above and to the left, a curved line extending from the junction of the third rib and sternum outward and downward to the apex of the heart in the fourth and fifth interspace at or a little within the mammary line. The right boundary (the most important as being the most variable in pathological conditions) is a perpendicular line corresponding very nearly with the left border of the sternum from the third to the sixth costal attachment. The lower half of the sternum is therefore of the same resonance as the upper half in children under six years of age.

From the fifth to the ninth year the praecordial dullness varies in different cases of the same age. In a few even at six years some slight dullness will be found over the lower half of the sternum. A considerable proportion, however, of children between five and nine have still the praecordia of infancy, this number diminishing as the end of the eighth year is approached.

In children over eight years and up to about the age of puberty the praecordia differs widely from that of infancy and adult life. The upper boundary is usually higher (*Vide*

Fig. 2), it is often found at the second interspace and occasionally at the second rib. The apex is generally one-quarter to one-half inch outside the mammary line. The chief difference is in the right border. Instead of a perpendicular it is now a curved line which meets the line of liver dullness at a point one and a quarter to one and a half inches to the right of the median line. There is, therefore, relative dullness over the lower half or two-thirds of the sternum.

In the percussion of the heart, both in children and adults, the following points deserve attention: First, only light percussion should be used; second, marking the changes of resonance upon the chest wall is extremely serviceable; Third, to determine the resonance of the lower portion of the sternum comparison should be made, not with the full pulmonary resonance along its right border, nor with the cardiac flatness along its left, but with the resonance of its upper half. Percussion should therefore be made from above downward, and if an oblique line of dullness is reached above the line of hepatic dullness at the level of the sixth rib, it may safely be ascribed, except in the second half of childhood, to an enlargement of the right heart or to cardiac displacement.

——o——

No. 421.

INTESTINAL PARASITES FOUND IN PORTO RICO.

By Antonio I. Amadeo, M. D.,
Maunabo, Porto Rico.

They constitute the most frequent trouble among the children of the island, and some adults also suffer the same malady. The ascarides lumbricoides is the parasite generally found, with the usual symptoms. It is surprising to see the number of lumbricoides passed by children when sick, not only through the rectum but also by the mouth.

Enteritis caused by these parasites has been observed by the author in calves, which had sanguinolent discharges and died exhausted, none of them passing any worm, but when opened after death the intestines were full of ascarides lumbricoides.

The fever, gastro-intestinal disturbances, nervous symptoms, etc., shown by sick children in consequence of the presence of these parasites in the intestinal tubes, are very often attributed in Porto Rico to malaria, which seems to be the refugium peccatorum of many practitioners who do not see anything else about them but the hæmato-parasite of Laveran.

Tænia, oxyurus vermiculares, and several other intestinal parasites are also met with.

Extract of male fern, calomel, aloes, and castor-oil are generally the remedial agents employed.

——o——

No. 422. "Immediate Percussion among Children," by Dr. Olinto, Porto Algre, Brazil. [Abstract.]

No. 423.

NOTES ON THE FEEDING OF INFANTS IN THE ISLAND OF CUBA.

By Joaquin L. Dueñas, M. D.,
Havana, Cuba.

The most usual way of feeding a child during its first infancy in the Island of Cuba is by maternal lactation. As a general rule, it can safely be said that the Cuban woman is a fit subject for the suckling of her children, the conditions necessary for a good nurse being of course better in the country than in the cities. There is a general tendency to discontinue lactation too soon, the city woman under the pretext of debility, and the country woman adopting a bad mixed system, sometimes suckling her child off and on for two whole years, while her citizen-sister prefers an artificial mixed system or sharing her maternal duties with a wet nurse.

The milk ordinarily chosen in the city is cow's milk, because it is cheap (five cents a pint), next ass's milk is given when a physician so orders, and, lastly, goat's milk and mare's milk.

Since 1890 sterilized milk has been employed, which sells at Havana at ten cents for a half pint, and about 10,000 bottles a month are now sold.

In the Maternity Hospital, of Havana, only wet nurses are employed, one for each child; its cost (salary, board, etc.) is forty-five dollars a month each, and the number of children usually admitted about twenty-seven or twenty-eight.

In the country cow's milk is given from the third or fourth month, or at the same time that the mother suckles her child, and in places where cow's milk is not easily got, goat's or mare's or ass's milk is substituted for it.

The first cooked food given to the child in the city is a mixed powder made up of sago and wheat flour, sugar and pulverized crackers, which the mother puts into milk or stirs it in a little bouillon. Crumbs of bread fried in a pan, bananina, light bread soup, and latter on vermicelli soup, tapioca, etc., are also given. In the country paps of sago or wheat flour are used, but more frequently corn flour or fried green plantain powdered in a mortar is employed.

Sometimes before the third or fourth month very imprudently the child is given sweet potato, rice, malanga (a farinaceous root of great consumption in Cuba, the arum sagitæ folium).

The bad (the author calls it "vicious") mixed system to which reference has been previously made, as adopted by the Cuban country woman, consists in letting the child eat every thing. From that source the frequent dyspepsias, the ventre gros of Bauinel, the successive attacks of enteritis, and secondary infection of the intestines arise.

—o—

No. 424. "Pertussis as it Exists in the Rocky Mountains," by John M. Keating, M. D., Colorado Springs, Col.

[Abstract not furnished.]

No. 425.

TYPES OF GASTRO-INTESTINAL DISEASE PREVALENT IN NEW YORK.

By Floyd M. Crandall, M.D.,
New York City.

The gastro-intestinal diseases common to young children are especially prevalent in large cities, where all the conditions exist which are active in their production. In New York over 30,000 children die of diarrheal diseases during each decade. Diarrheal diseases occur during every month of the year, but they do not become seriously prevalent until the middle of June. During the last ten days of June these diseases usually begin to develop in large numbers. They are most prevalent during the first twenty days of July. At that date the number of new cases decidedly diminishes. During the six weeks between July 20th and September 1st the development of new cases is quite uniform, being less than half that of early July. During the latter part of September there is again a decided increase in new cases. These variations are represented by a chart based upon a study of diarrhea during four years. Numerous factors contribute to the results shown by this chart, heat being one of them.

The prevailing type of the disease changes with the season. During June and early July the prevailing type is that of acute dyspeptic diarrhea. The diarrhea at this period is largely of the serous type. In August the prevailing disease is marked by less watery stools, much less frequent in number; and entero-colitis is common. During the latter part of September a prevailing type of disease develops of which but little is seen earlier in the season, the so-called dysenteric diarrhea.

Study of these variations shows that, although age is an active etiological factor it has but slight influence upon the type of disease.

Observations are reported upon various symptoms of diarrhea. In a large number of cases disordered digestion in some form preceded the actual attack of diarrhea. In 72 per cent of the dyspeptic cases, the onset was definite or sudden; and in the dysenteric form the onset was sudden in a much larger proportion. The number of stools per day varied in dyspeptic diarrhea from two or three to twenty or thirty, the common range being from six to fifteen; in entero-colitis the common range was from eight to twelve; and in dysenteric diarrhea twelve to twenty.

The fact that diarrhea is, accurately speaking, a symptom, not a disease, is demonstrated by the study of certain types. Observations are reported upon other symptoms—number and color of the stools, the occurrence of vomiting, pain and fever. From these studies several types of diarrhea are described, no claim being made, however, that they are sufficiently distinctive to be characterized as classes worthy of a specific name.

—o—

No. 426.

THE INSANE DISORDERS OF CHILDHOOD.

By John Madison Taylor, A.M., M.D.,
Philadelphia, Pa.

Insanity arising from the same sources as in the adult is rare in childhood, but mental defects are common and grow rapidly worse unless wisely handled.

The causes of these states are numerous. Some result from depressed physical powers, but more are the result of careless usages and vice. There is danger in certain parental tendencies and vitiated appetites from the use of alcohol, opium and tobacco. Tuberculous families and those with notable unstably nervous equilibrium are subject to numerous mental disorders. The childish brain is vulnerable at all times, and is readily affected by conditions which would have no effect upon the adult. Moral causes, as shock, fright, or dread, are active factors in disturbing the mind, as are also religious teachings of a lurid hyperbolic type. Acute febrile diseases, want and exposure, are also causes of mental derangement. Medicines are often quite useless, but moral control and tactful domination must be ever forthcoming. It is rare to find a mother capable of training a child of this type.

The insane disorders, as the term is used here, include not only insanity but that mixture of hysteria and insanity which is often almost indistinguishably blended. Hysteria in the larger significance of the word must not be excluded. It imitates all neuroses but never presents a picture faithful in essential details. While pre-eminently an imitation it is not all true simulation. In children it is rarely suspected, but it is possible as soon as the receptive faculties and power to form concepts are fairly established. Acute hysteria and organic brain disease may co-exist, but it is rare in childhood.

Mental perversions are hard to distinguish from merely evil and vicious tendencies. A large familiarity with hysterical states increases respect for the difficulties of diagnosis. In the management of these children of hysterical and maniacal tendencies the most important step to be gained by the physician is to gain the confidence of the child. It is best to show and preserve a frank, quiet, but persistently friendly demeanor. It is well to efface as far as possible the difference in age or position between the physician and patient. Corporal punishment is sometimes needed. Some children of low tone or vicious hysteroidal character are amenable to no other argument. More often gentle admonition or kindly encouragement will suffice. A jocose bantering tone is always to be avoided. Children of pauper and criminal classes need most careful watching and unusual training in the fundamental principles of morality. Instead of this, they usually get too much liberty and religious teaching. The latter tends to foster an exaggerated emotion. Moral instruction should always precede the religious.

A detailed history of several cases illustrating the points brought out in the paper is appended.

—o—

No. 427.

CIRRHOSIS OF THE LIVER IN CHILDHOOD.

(Second communication.)

By William A. Edwards, M. D.,

San Diego, Cal.

[Microscopic report by William M. Gray, M. D., Microscopist Army Medical Museum, Washington, D. C.]

In the present communication it is our desire to further study the case which formed the basis of a paper on the subject of hepatic cirrhosis in children, that appeared in the

Archives of Pediatrics, July, 1890, and to present the results of the post-mortem examination in this case, together with the microscopic studies and photomicrographs of Dr. Gray.

The disease pursued the usual course as seen in the adult. Gastric disturbances, coated tongue and foul breath, occasional nose bleed, constipation alternating with diarrhea, headache, dry harsh skin, jaundice, stigmata, some side pain, lassitude, languor and drowsiness.

Thirty days before death ascites arose, in twenty days the belly became enormously distended with serum, the legs were œdematous, the veins of the breast and abdomen greatly distended. The pulse 120, respiration 30, temperature 100 F. Total quantity of urine passed in twenty-four hours, sixteen ounces, small amount of albumen and a few granular tube casts.

On September 13, 1890, assisted by Dr. Le Fevre, I performed paracentesis abdominis and withdrew one and one-half gallons of clear fluid. For twenty-four hours there was a free drainage of clear serum from the puncture, the next day it decreased to almost nothing. The child became drowsy and complained of abdominal distress and pain; the original puncture in the abdominal wall was enlarged and a rubber drain inserted, and at once two pints of fluid drained away. This fluid was, however, no longer clear but contained some pus. Slight improvement was noted in the child's general condition. The temperature remained lower, the pulse below 100 and the respirations below twenty, but this gain was of short duration. The urine became scant, high colored and bile stained, and was voided with difficulty. The child grew progressively weaker, and weaker, hiccough arose, the temperature became subnormal and the pulse extremely irregular. The urinary secretion was almost suppressed, and finally, on the evening of September 23, convulsions arose which persisted until death on the 24th. These convulsions were most severe, clonic in nature and lasted for fifteen or twenty minutes, with only short intervals between. Death occurred in one of these spasms.

Post-mortem.—Six hours after death, assisted by Drs. Le Fevre and T. A Davis. Child much emaciated. Several petechial spots over thighs, legs and chest.

Thorax.—Heart small, cavities dilated and contained clots. Valves normal. Aorta healthy; muscle slightly fibroid; lungs and pleurae healthy.

Abdomen.—Peritoneum thickened and venous channels greatly dilated. Stomach.—Mucous membrane thickened and slightly ecchymotic. Spleen weighed nine ounces and appeared to be normal, except that it was intensely congested. The liver is well represented in the accompanying photograph. It weighed twenty-six ounces and is a remarkable example of atrophic cirrhosis. Its microscopic changes are most graphically and accurately presented in the photomicrographs of Dr. Gray.

It is somewhat remarkable that life could be sustained with such an important organ as the liver in the advanced state of disease shown by the specimen; the organ was practically converted into a mass of fibrous tissue.

The gall-bladder was comparatively normal, its mucous membrane slightly thickened. Contained a small amount of thin bile. No calculi.

The kidneys were large, swollen, congested and hyperaemic; they could be classed as examples of parenchymatous nephritis. The intestines were normal with the exception

of the vermiform appendix, which was gangrenous from its terminal extremity almost to its origin in the caecum. There was, however, no perforation. It contained no concretions or faecal matter. I was unable to determine why this gangrenous condition existed; had the child survived a few days longer perforation would undoubtedly have occurred.

The rectum and bladder were not diseased. Brain and spinal cord not examined.

A review of the literature and deductions from the microscopic studies complete the paper.

—o—

No. 428. "The Artificial Feeding of Children in Mexico," by Dr. J. Ramon Icasa, City of Mexico, Mexico.

[Abstract.]

—o—

No. 429. Address, by W. S. Christopher, M. D., Chicago, Ill.

SECTION ON PATHOLOGY.

HONORARY PRESIDENTS:

DR. ANTONIO J. AMADEO, Maunabo, Puerto Rico; DR. FRANCIS DELAFIELD, New York; DR. GEORGE DUFFIELD, Detroit; DR. JOHN GUITÉRAS, Philadelphia; DR. F. S. JOHNSON, Chicago; DR. MORRIS LONGSTRETH, Philadelphia; DR. ALFRED L. LOOMIS, New York; DR. L. D. MIGNAULT, Montreal; DR. T. FRANCISCO PUELMA, Santiago, Chili; DR. JOSÉ M. QUIROGA, Lima, Peru; DEPUTY SURGEON GENERAL GEO. M. STERNBERG, U. S. Army; DR. CLARK STEWART, Minneapolis, Minn.; DR. JOSHUA M. VAN COTT, Brooklyn, N. Y.; DR. JOAQUIN VÉRTIZ, City of Mexico; DR. WILLIAM H. WELCH, Baltimore; DR. J. J. CORNILLIAC, St. Pierre, Martinique; DR. W. T. COUNCILMAN, Boston, Mass.; DR. JUAN LANDETA, Havana, Cuba; DR. JOHN H. MUSSER, Philadelphia, Pa.; DR. E. O. SHAKESPEAR, Philadelphia, Pa.

EXECUTIVE PRESIDENT:

DR. JOHN GUITÉRAS, 4914 Sansom Street, Philadelphia, Pa.

SECRETARIES:

DR. DAVID INGLIS (English-Speaking), 21 State St., Detroit, Mich.		DR. LOUIS F. CRIADO (Spanish-Speaking), 147 Ft. Greene Pl., Brooklyn, N. Y.
DR. WERNICKE [Victoria 1194]	Buenos Aires	Argentine Republic.
DR. ENRIQUE HERTZOG	La Paz	Bolivia.
DR. LEOPOLDO MENDES COSTA	Rio de Janerio	U. S. of Brazil.
DR. JOHN CAREN	Toronto	Canada.
DR. RAIMUNDO DE CASTRO [Salud esq. á Gervasio]	Havana	Cuba.
DR. NICOLÁS OSORIO [Calle 13 núm. 181]	Bogota	Republic of Colombia.
DR. J. CARREAU	Point à Pitre	Guadeloupe, F. W. I.
DR. SAMUEL GONZÁLEZ	Guatemala City	Guatemala.
DR. F. L. MINER	Honolulu	Hawaii.
DR. RAFAEL FIALLOS	Tegucigalpa	Honduras.
DR. FRANCISCO HURTADO [León 9]	City of Mexico	Mexico.
DR. J. MARTINEZ	Granada	Nicaragua.
DR. DAVID MATTO [Facultad de Medicina]	Lima	Peru.
DR. ALFREDO VIDAL Y FUENTES [Sierra 8]	Montevideo	Uruguay.
DR. M. M. PONTE	Caracas	Venezuela.

SECTION ON PATHOLOGY.

[Abstracts received too late for publication.]

No. 451. "Abscess of the Liver," by JAMES E. REEVES, M. D., Chattanooga, Tenn.

No. 452. "Notes on Three Years' Work in the Pathological Laboratory of the Charity Hospital of New Orleans," by HENRY DICKSON BRUNS, M. D., New Orleans, La.

No. 453. Paper, by WM. HENRY WELCH, M. D., Baltimore, Md.

No. 454. Paper, by W. T. COUNCILMAN, M. D., Boston, Mass.

No. 455. "Influenza," by RAMON GUITERAS, New York City, N. Y.

No. 456. "A Bacteriological Observation on the Waters of the Harbor of Havana," by Drs. ACOSTA and GRANDE, Havana, Cuba.

No. 457. "Pathological Histology of Yellow Fever," by Drs. ACOSTA and GRANDE, Havana, Cuba.

No. 458. "Investigations Concerning Malaria," by Drs. CORONADA and MADAU, Havana, Cuba.

No. 459. "Bacteriological Studies in Havana," by Dr. DAVALOS, Havana, Cuba.

No. 460. "Investigations upon the Carbuncle in Cuba," by Dr. CORONADO, Havana, Cuba.

No. 461. "Observations on the Anti-Rabic Treatment of Pasteur," by Dr. ACOSTA, Havana, Cuba.

No. 462. "Aetiology of Cancer with Especial Regard to the Protozoa Parasites of Cancer," by ALLEN J. SMITH, M. D., Galveston, Texas.

No. 463. "Contribution to the Study of Cancer," by Dr. WERNICKE, Buenos Ayres, Argentine Republic.

No. 465. "Yellow Fever of the Creoles and the Negroes," by Dr. A. J. AMADEO, Maunabo, Porto Rico.

No. 466. Paper, by E. O. SHAKESPEARE, M. D., Philadelphia, Pa.

No. 467. Paper on Yellow Fever (definite title not yet furnished), by Dr. C. HEINEMAN, Vera Cruz, Mexico.

No. 468. "Theories of Inflammation," by Dr. JOSE TORRES MATOS, Havana, Cuba.

No. 469. "L'etat de Hyperexcitabilite du nerf Phrenique Daus le Beriberi," by Dr. J. B. DA LACERDA, Rio de Janeiro, Brazil.

No. 470. "Paludismo," by Dr. Antonio Jose Amadeo, Maunabo, Porto Rico.

No. 471. "Pathology at the Institution for Feeble-minded Children, at Elwyn, Pa." by Henry W. Cattell, M. D., Philadelphia, Pa.

No. 472. "The Epithelio-genetic Origin of Cancer," by Joseph McFarland, M. D., Philadelphia, Pa.

No. 473. "Cancer," by Dr. Wernicke, Buenos Ayres, Argentine Republic.
[Formal Discussion, with Professor Allen J. Smith as Co-referee.]

No. 474. "Cancer," by Joshua M. Van Cott, M. D., Brooklyn, N. Y.

No. 475. "Cancer," by Joseph McFarland, M. D., Philadelphia, Pa.
[Formal Discussion.]

No. 476. "Yellow Fever," by Drs. Acosta and Grande, Havana, Cuba.
[Formal Discussion, with Dr. A. J. Amadeo, of Porto Rico, as Co-referee.]

No. 477. "Practical Demonstration of the Methods in Pathological Histology," by James E. Reeve, M. D., Chattanooga, Tenn.
[Demonstration.]

No. 478. "Practical Demonstration of the Methods in Photography Applied to Pathology," by Wm. M. Gray, M. D., Army Medical Museum, Washington, D. C.
[Demonstration.]

No. 479. "Practical Demonstration of Methods in Bacteriology," by J. J. Kinyoun, M. D., U. S. Marine Hospital Service, Washington, D. C.
[Demonstration.]

No. 480. "The Third Blood Corpuscle as a Pathological Product," by R. L. Watkins, M. D., New York City, N. Y.

No. 481. "On Cholera," by Herman M. Briggs, M. D., New York City, N. Y.

No. 482. "Pathology of Pelvic Inflammatory Trouble," by Joseph Price, M. D., Philadelphia, Pa.

No. 483. Paper, by G. F. H. Nuttall, M. D., Baltimore, Md.

No. 484. Paper, by Wm. Hughes, M. D., Philadelphia, Pa.

No. 485. Paper, by W. J. Carter, M. D., Philadelphia, Pa.

SECTION ON OPHTHALMOLOGY.

HONORARY PRESIDENTS:

Dr. Aurelio Alarco, Lima, Peru; Dr. Stephen C. Ayres, Cincinnati; Dr. Abner W. Calhoun, Atlanta, Ga.; Dr. Maximo Cienfuegos, Santiago, Chile; Dr. Cárlos Finlay, Havana, Cuba; Dr. Herbert Harlan, Baltimore; Dr. Ferdinand C. Hotz, Chicago; Dr. Herman Knapp, New York; Dr. Charles W. Kollock, Charleston, S. C.; Dr. Chas. E. Michel, St. Louis; Dr. Dudley S. Reynolds, Louisville; Dr. Stephen O. Richey, Washington; Dr. Sam'l D. Risley, Philadelphia; Dr. Eugene Smith, Detroit; Dr. José Ramos, City of Mexico, Mexico; Dr. R. H. Lewis, Raleigh, N. C.; Dr. G. C. Savage, Nashville, Tenn.; Dr. Hasket Derby, Boston, Mass.; Dr. T. E. Murrell, Little Rock, Ark.; Dr. James L. Thompson, Indianapolis, Ind.; Dr. John E. Minney, Topeka, Kansas; Dr. E. C. Rivers, Denver, Colo.; Dr. C. J. Kipp, Newark, N. J.; Dr. C. M. Shield, Richmond, Va.; Dr. B. J. Baldwin, Montgomery, Ala.; Dr. J. F. Fulton, St. Paul, Minn.; Dr. H. L. Hilgartner, Austin, Texas; Dr. X. C. Scott, Cleveland, O.; Dr. E. J. Gardiner, Chicago, Ill.; Dr. John F. Fulton, St. Paul, Minn.

EXECUTIVE PRESIDENT:

Dr. Julian J. Chisolm, 114 W. Franklin St., Baltimore, Md.

SECRETARIES:

Dr. Geo. M. Gould (English-Speaking), 119 S. 17th St., Philadelphia, Pa.	Dr. J. Harris Pierpont (Spanish-Speaking), Pensacola, Fla.
Dr. Barraza [Cordoba 1471]	Buenos Aires . . . . . Argentine Republic.
Dr. Cuthbert Bowen	Bridgetown . . . . . Barbados, W. I.
Dr. Ernesto Mazzei	La Paz . . . . . Bolivia.
Dr. Hilario de Gouveã	Rio de Janeiro . . . . . U. S. of Brazil.
Dr. G. H. Burnham	Toronto . . . . . Canada.
Dr. Proto Gomez [Carrera 8, núm. 370]	Bogota . . . . . Republic of Colombia.
Dr. Juan J. Ortega	Guatemala City . . . . . Guatemala.
Dr. H. G. McGrew	Honolulu . . . . . Hawaii.
Dr. Augustin Chacón [Escuela de Medicina] . . .	City of Mexico . . . . . Mexico.
Dr. Rodlfo F. Herdocia	Leon . . . . . Nicaragua.
Dr. Joaquin de Salterain [Canelones 8]	Montevideo . . . . . Uruguay.
Dr. Miguel Castilla	Merida . . . . . Venezuela.

SECTION ON OPHTHALMOLOGY.

No. 501(*a*). Formal Address by JULIAN J. CHISOLM, M. D., Executive President of Section, Baltimore, Md.

—o—

No. 501.

SKIN GRAFTING AS A THERAPEUTICAL AGENT IN MALIGNANT GROWTHS OF THE EYELIDS AND OF THE ORBIT.

BY F. B. TIFFANY, M. D.,
Kansas City, Mo.

In making these plastic operations much care should be taken to secure as good health as possible before operating, as the life of the plant depends much upon the general health of the patient. From one-fifth to one-fourth larger plant than the dimensions of the space it is to occupy should be secured, only the true skin, free from fats, and no subcutaneous tissue is taken. Also the bed as well as the plant must be entirely free from hemorrhage, as blood in the cavity might give rise to suppuration and sloughing. The graft is secured by delicate silk or cat-gut, and the parts then carefully covered by gauze (antiseptic). I do not use the isinglass plaster and collodion, nor do I ever use iodoform. I dress the parts daily, but do not disturb the plants for seven or eight days, usually leaving the sutures for this length of time. At first the graft is of a white, deathly, cadaverous appearance, but soon it takes on a red granular look and after a few days becomes normal; occasionally the epidermis turns black and may exfoliate, but there is not sloughing and soon perfect skin will assert itself. Cases in which I have resorted to plastic surgery with a view of indemnifying the parts against a return of malignancy are those of the orbit and of the eyelids.

I have used it quite a number of times and as yet where I have employed it there has been no return of the cancerous growth. It has been my experience that these grafts are more sure to live without a pedicle than with. Care should be taken to select them from the part of the body where the skin is thin and free from hairs as possible.

—o—

No. 502. "Further Experiences in Graduated Tenotomy," by CHARLES HERMON THOMAS, M. D., Philadelphia, Pa.

—o—

No. 503. "A Case of Cysticercus of the Vitreus," by WILLIAM CHEATHAM, M. D., Louisville, Ky.

[Abstract not furnished.]

No. 504.

SPONTANEOUS REPLACEMENT OF A DETACHED RETINA.

By James Wallace, M. D.,
Assistant Ophthalmic Surgeon to the University Hospital, Philadelphia, Pa.

The origin of the trouble was in a traumatic episcleritis, produced by a small piece of hot brass, which was thrown off from a lathe and struck the right eye in the ciliary region. Date of injury, November, 1888. The inflammation seems to have spread at once to the deeper structures, producing haziness of the vitreous and inflammation of the retina. Five months after the trouble the patient noticed a dark stream, starting from the lower part of the eye and spreading upwards (actually from above downwards). May, 1889, O. D. counts fingers, iris discolored greenish, large floating masses in the vitreous of a dark reddish color, no view of fundus. 6–9–89, Fingers only seen in outer field. 7–13–89, No perception of hand, retina can be seen by oblique illumination floating forwards, its vessels plainly visible and some red spots near the centre. Treatment to this time, potass. sod. sixty grains per diem. Treatment abandoned. 8–11–89, Patient sees hand when held in lower outer field. The detached retina can now be seen limited to temporal side. 9–8–89, Retina has replaced itself still more. The nasal portion of the retina is now visible by the direct ophthalmoscopic method, and to the temporal side can be seen the hemorrhages. 12–1–89., V. in lower temporal field $\frac{5}{30}$. 1–19–90, V. $\frac{5}{60}$ direct vision. From this time on V. rapidly increased and field of vision spread suddenly out (see chart). 3–16–90 with +10+.50 cy. ax. $^{180}\frac{5}{15}$. 7–16–90, +750+.75 cy. ax. $^{180}\frac{5}{9}$. This was the best vision obtained and no change has since taken place. The lesion consisted in the rupture of one of the branches of the upper temporal vein of the right eye. The downward gush of blood was visible to the patient as an ascending dark stream. From the source of the hemorrhage above to the pool of blood below, a coagulation proceeding to partial organization took place. The subsequent contraction of the clot pulled the retina from the choroid. The co-existing disease of the vitreous rendered this all the more easy. On the first view of the fundus after replacement of the retina, a structure like the strings of a harp was seen to extend from the upper to the lower clot. Some of these had snapped in the middle and some had parted at their upper or lower extremities. The mechanism of the detachment is thus easily shown. A small detachment still remains above and below. In the vicinity of the macula is seen a white crescentic line caused by the stretched and distorted retina. Acunous metamorphopsia of a straight line appearing curved to the patient corresponds exactly with this defect, and the curve as drawn in my book, is exactly the shape of the retinal lesion.

—o—

No. 505. A CLINICAL STUDY OF HETEROPHORIA.

By Hiram Wood, M. D.,
Baltimore, Md.

This question will be the basis of the paper: "What Importance Should Be Attached to the Presence of Heterophoria?" Observations in office practice will be the foundation of what is said.

Attention will be called to the association of particular refraction and muscular errors: to the symptoms—if there be such—which, when both refraction and muscular errors are present, point to the latter as the cause of asthenopia or reflex disturbances.

The following points will be discussed:

(1) The correction of a refraction error will often cause asthenopia although there may be demonstrable grave forms of heterophoria.

(2) Heterophoria may result from uncorrected refraction error; either disappearing after glasses, correcting the latter, have been worn for a time, or, if demonstrable, not causing any trouble.

(3) On the other hand, with practically the same conditions, no permanent good will be done till the heterophoria has been taken into account. In the first class the heterophoria seems to be secondary, in the latter the most important factor. What means have we, short of waiting for time to decide with which class we are dealing? The answer to this lies not so much in either the nature or degree of heterophoria, as revealed by equilibrium tests, as in the symptoms; the *relative* equilibrium error for distance and near; the relative power of the S. R. and I. R. when the vertical muscles are at fault; abduction, when esophoria is demonstrated, the power of convergence and behavior on exclusion being more important guides in exaphoria than adduction; the degree and nature of the associated refraction error. The above muscular conditions do not always confirm the findings of the equilibrium tests. What should this lead us to look for?

As regards the treatment of heterophoria, attention will be called to the possibility of using prisms too soon; of the usefulness of exercise—specially for troubles in the internal rectus—and the results of some tenotomies.

—o—

No. 506.

TREATMENT IN SIX CASES OF TRAUMATIC CATARACT WITH IRIDO-CYCLITIS.

By Robert L. Randolph, M. D.,

Baltimore, Md.

In six cases of traumatic irido-cyclitis cataract was also produced by the injury. The lens swelled up as is usual and acted as a violent irritant pressing against the ciliary body and iris and almost causing the obliteration of the anterior chamber.

The treatment consisted in simply removing the crystalline lens.

The best vision obtained was counting fingers in twenty feet. In two cases enucceation had been advised by a prominent oculist, and in one of these cases, the vision mounted up to counting fingers in fifteen feet, and the other to counting fingers in two feet.

I operate in such cases just as soon as I see the patient. I think it unwise to wait even a day. It is surprising to see how quickly all inflammatory symptoms subside. Of course such an operation should be done in as absolutely cleanly manner as possible.

No. 507.

HOMEOCHRONOUS* HEREDITARY OPTIC NERVE ATROPHY.

By George M. Gould, A. M., M. D.,

Opthalmologist to the Philadelphia Hospital, Philadelphia, Pa.

Dr. Gould reported some thirteen cases of hereditary optic-nerve atrophy extending through six generations. The affection came on during adult manhood, usually at from twenty-eight to thirty-four years of age. Other members of the family only required slight traumatism to induce partial or complete blindness, showing a lack of strength or delicate equilibrium of the visual mechanism. The striking peculiarity of the family history consists in the fact that after the second generation the disease is only transmitted by unaffected women. Passing the line through a male, even though he be blind, at once stops the appearance of the disease. No woman of the family has been affected. In one group the inheritance is passed through three unaffected females. Following out the law thus discovered it is found that so far as can be learned, there are only three young males living who are liable to the disease, *i. e.*, who are the sons of women of the family when the line has not been passed through a male since the second generation. Of these three brothers, the elder is nearly blind at twenty-eight, and his two younger brothers who have not yet reached the ominous age, have chronic retinitis, with degenerative changes already observable. In the later generations there is a remarkable predominance of males, and a rapid decrease of prolific females, thus fortunately bringing the vicious inheritance to a sharp ending. If the law holds good, there will be no danger of a reappearance of the atrophy after this present (sixth) generation, as there will be no male children of the family whose ancestral line has not been passed through a male of the family.

—o—

No. 508.

FURTHER STUDIES OF THE CYCLOPLEGIC VALUE OF HOMATROPINE AND COCAINE DISKS AS ATROPINE, DUBOISINE AND HYOSCIN SUBSTITUTES.

By Casey A. Wood, C. M., M. D.,

Opthalmic Surgeon Alexian Hospital; Oculist and Aurist Cook County Hospital and to the Emergency Hospital, Chicago; Professor of Ophthalmology, Chicago Post-Graduate Medical School.

The results of these investigations (which now number several hundred) are chiefly these: (1) all the cycloplegics fail upon occasions to paralyze the accommodation, and this fact must always be kept uppermost in comparing their merits as cyclopegics. I have numerous cases on my note books where a one per cent solution of atropine, instilled six times in forty-eight hours, revealed (*e. g.*) a much higher degree of hyperopia or astigmatism a couple of weeks after a first trial. In comparing homatropine *plus* cocaine

* *Homoios*, similar; *Chronos*, time. Applied to a hereditary trait or disease, appearing at a similar age or time of life in a line of descendants

disks, (3) as I have chiefly done in my later investigations, with atropine sulphate (1 per cent solution) and hyoscine hydrobromate (single instillations of a 1 per cent solution, examination an hour afterward) I have begun sometimes with one agent, sometimes with the other, so that the assistance obtained by the previous use of another cycloplegic might not only assist the one under observation. (2) Hyoscin hydrobromate, as well as its near relatives, duboisin sulphate and hyoscyamine sulphate appear, in my hands at least, to be too toxic, too uncertain, and even too dangerous to be used by the patient as atropine can be, and in none of the cases where I have employed all three agents were better results obtained than with atropine—*quoad* the ciliary paresis. Even with the patient under observation in my office or under my assistant's care in hospital, they all impressed me—take what precautions I would—as dangerous and unreliable agents. Small doses of them are inefficient, and large doses may prove toxic. In many instances one is reduced to the choice between poisoning one's patient and not relaxing his accommodative spasm. (3) With the foregoing modification, I found little or no difference between the cycloplegic effects of the four named alkaloidal salts and disks of gelatine containing the $\frac{1}{50}$ grain each of homatropine (alkaloid, Merck) and cocain (alkaloid, Merck). (4). I used, however, young subjects, and in cases of suspected accommodative spasm, one disk of the latter every twenty minutes until three had been put into each eye, and made the examination between 80 and 110 minutes after introducing the first disk. (5) That the personal equation should not disturb the accuracy of the observations, every case was first worked out by the retinoscopy method, and under similar conditions, by my painstaking assistant, Dr. T. A. Woodruff, and afterward reviewed by myself. The retinoscopy result was accepted as the refractive condition, and no reliance was placed upon the patient's statements. (6) Tables giving the result in every case form part of this paper, and are in line with the statements just made.

——o——

No. 510.

AN ANALYSIS OF FIFTY (50) CASES OF CONVERGENT STRABISMUS.

By Howard F. Hansell, M. D.,
Philadelphia, Pa.

A comparison with 200 cases (400 eyes) of hypermetropia without squint.

My purpose in this comparative analysis is to endeavor to prove clinically, that,

(1) H. is found in nearly all cases of convergent squint.

(2) H. is not essential to convergent squint.

(3) Congenial amblyopia is almost uniformly present in constant internal squint.

(4) Amblyopia is not essential to squint either constant or alternating.

(5) Amblyopia is found in it without squint.

(6) Amblyopia is not a condition of alternating squint.

(7) Amblyopia precedes the appearance of abnormal convergence and is not the result of non use.

(8) The degree of it does not determine the squinting eye.

(9) The degree of it does not determine amblyopia.

(10) H. may be the determining cause of squint.

(11) H. as must be considered equally with it, as a refractive cause of squint, and may be, in some cases, the more important factor in determining the squinting eye.

(12) A considerable difference in the refraction of the two eyes may not cause squint.

(13) Amblyopia determines which eye shall squint and in its absence either eye fixes indifferently without regard to the degree of H.

—o—

No. 511. "Gouty and Rheumatic Affections of the Eye," by W. Oliver Moore, M. D. New York City, N. Y.

[Abstract not furnished.]

—o—

No. 512.

HEMORRHAGIC GLAUCOMA.

S. D. Risley, M.D.,
Philadelphia, Pa.

Internally potassium iodide, or better still small doses of corrosive sublimate, frequently repeated, and long continued, with occasional doses of pilocarpine, were commended as useful in the predomol stage. Locally eserine in very weak solutions were often beneficial, even before the onset of the glaucomatous stage of the disease, bnt stronger solutions should be employed in the presence of increased tension.

After the onset of the glaucoma no form of treatment promised much hope of permanent relief except enucleateus of the ball. Among operative precedures of a less radical character, posterior sclerotomy to relieve the tension and pain, to be followed in twenty-four hours or longer by anterior sclerotomy or in some cases by iridistomy seemed to promise most.

—o—

No. 513. "Suppurative Processes of the Vitrious," by J. F. Fulton, M. D., St. Paul, Minn.

[Abstract not furnished.]

—o—

No. 515.

THE LOCAL USE OF MERCURY IN THE DEEPER-SEATED DISEASES OF THE EYE.

By D. Mittendorf, M. D.,
New York City, N. Y.

The author's attention being called to the rapid improvement of an eye affected with diffuse or parenchymatous disease of the cornea, which had become at the same time the seat of granular conjunctivitis, for which a solntion of the bichloride of mercury 1 : 5000

was used, extended the use of this remedy to cases of serous choroiditis with numerous punctate deposits of the membrane of Descemet and to cases of sympathetic ophthalmia, and encouraged by his results and the writings of several European authors who recommended the use of this remedy in the shape of hypodermic injections to the subconjunctival and even deeper tissues of the eye ball, applied it in cases of plastic irido-choroiditis, old posterior synechiae and exudations into the vitreous humor with considerable success.

The results have been especially gratifying in cases of keratitis due to congenital syphilis, in keratitis punctata accompanying serous irido-choroiditis and in cases of sympathetic ophthalmia.

—o—

No. 516.

A CLINICAL STUDY OF THE VISUAL FIELDS IN HEMIANOPSIA.

By Charles A. Oliver, M. D.,
Philadelphia, Pa.

This paper comprises a series of investigations based upon an unselected successive number of personal examples of the various forms of symmetrical defect in the fields of vision—especially of the hemianopic type,—which seem to prove that, first, the macular fibres of each retina have a special, individual and crossed connection with the right and the left cuneal regions; second, the circum-macular fibres of each retina have connection both with certain related parts of the occipital cortex of their own side and the opposite side, the preponderant number of these fibres being situated in the temporal region of each retina and passing uncrossedly to the occipital cortex of their own side.

—o—

No. 517. "Glaucoma from Traumatic Causes," by Dr. E. Lopez, Havana, Cuba.
[Abstract not furnished.]

—o—

No. 518. "Nomenclature of Blepheritis," by Dudley S. Reynolds, M. D., Louisville, Ky.
[Abstract not furnished.]

—o—

No. 520.

A COMPARISON OF THE EYES OF WHITE WITH COLORED PUPILS IN THE PUBLIC SCHOOLS OF WASHINGTON CITY.

By E. O. Belt, M. D.,
Washington, D. C.

The fact of the increase of myopia during school life being established, the important point for the physician to consider is its cause and its prevention.

That heredity and older civilization have much to do with it, would seem to be indicated from comparisons made between pupils in Europe and in this country, and I

have thought a comparison between the eyes of white and colored pupils would throw additional light upon this point.

The few cases of abnormal eyes found among the colored pupils, as compared with the white, indicate the influence of heredity, and the more advanced civilization in the causation of defective eyes. Especially is this so of astigmatism, which was found in twenty-five per cent of the white and in only ten per cent of the colored pupils. That hypermatropic eyes are unhealthy ones, and tend to become myopic after passing through the stage of emmetropia, seems also to be indicated.

——o——

No. 521.

THE HYGIENIC AND SCIENTIFIC VALUE OF EXAMINATIONS OF THE EYES IN THE SCHOOLS.

By B. Alexander Randall, M. D.,
Philadelphia, Pa.

Accuracy and thoroughness are the prime factors. Too many questions face the examiner to admit of his answering all; so a wise choice of methods is requisite, that the most important points shall be determined with economy of time and all possible precision. The examiner can record the name, age, class, general health and ocular comfort of the pupil, the vision, accommodation and color-sense of each eye, with its eye-ground condition and refraction as determined by ophthalmoscope and retinoscopy in about three minutes. Lens-tests and ophthalmometer measurements may be added if time permits. The value of such determinations is unquestionable. Wide divergence of findings will be rare under such conditions; and while rigid discrimination is needful in studying the results of past work, the correlation of data may be easy in the future. Ophthalmology can then rest on facts, instead of assumptions: and can have indisputable answers to the questions:

Is emmetropia common or rare?

Can hypermetropia be healthfull outgrown?

Is myopia inherited, evolved, or pathologically produced?

Is astigmatism the rule or the exception? or the all embracing query:

What is the usual and normal refraction of the human eye?

——o——

No. 522.

ON CROUPOUS IRITIS.

By Adolf Alt, M. D.,
St. Louis, Mo.

Croupous iritis is a separate form of inflammation of the iris which is probably due to a specific microbic invasion of the iris tissue.

The same form of inflammation may extend backwards into the ciliary body and choroid and produce croupous irido-choroiditis.

Clinical histories.

Anatomical examination proves the existence of a croupous exudation in the tissues of the tract in the aqueous and vitreous humors, and contained in it numerous bacteria resembling the staphylococcus aureus.

Treatment.

———o———

No. 523. "Tratamiento del Triquiasis y Distiquiasis por Adelanta-miento del Parpado Superior," by Dr. J. Santos Fernandez, Havana, Cuba.

———o———

No. 524.

REMARKS ON THE TREATMENT OF HETEROPHORIA.

By E. J. Gardiner, M. D.,
Chicago, Ill.

The time for purely theoretical discussions on the subject of muscular anomalies is past.

Reports of cases reciting experiences with the different methods of treatment, and the results, now necessary in order to study the subject from a clinical standpoint.

The majority of investigators agree:

(1) That anomalies of the muscular apparatus of the eye produce certain forms of disturbances.

(2) That these disturbances may be local, and general.

(3) That the correction of the muscular anomalies is usually followed by relief from the disturbances.

Method used for detecting and measuring the different forms of heterophoria. Particular attention given to the elimination of other causes of disturbance by anomalies of refraction, diseases of other organs, etc.

The subject so extensive that one form only of heterophoria will be considered in this paper—hyperphoria.

Report of cases selected so that the various forms of errors of refraction combined with heterophoria will be considered, and the method of treatment, with results noted.

———o———

No. 525.

EXTRA OCULAR MELANO-SARCOMA OF THE ORBIT.

By S. C. Ayres, M. D.,
Cincinnati, Ohio.

Melano-sarcoma of the orbit most generally originates in the choroid, perforates the salera and then invades the orbital tissues. Is melano-sarcoma of the choroid more frequently primary or secondary? What operation is most advisable for its relief and is there any constitutional treatment which will arrest or retard its progress? What internal organs are most frequently implicated with sarcoma of the choroid?

No. 526.

ORBITAL TUMORS.

By Walter B. Johnson, M. D.,

Paterson, N. J.

In advising operation, the most important considerations are: If the tumor is benign; is it endangering the integrity and vision of the eye? Will it possibly disappear without operation? May it be a benign tumor which presents the symptoms and character of a malignant growth and is possibly a (Lymphoma?) and non-malignant?

If the tumor is decidedly malignant the important question is the probability of its complete removal, for if not likely to succeed in the entire evisceration of an orbital tumor, and if some of the malignant tissue may remain within the orbital or surrounding cavities, and cannot be removed or destroyed, it is almost certain that the growth will recur with marked rapidity and much more extensively than if it never had been operated upon, and that the patient will succumb much sooner than would otherwise have been the case.

The tumor, even if malignant, if confined by the presence of the eye-ball and the surrounding tissues, will be of comparatively slow growth.

Even though there is progressive protusion, loss of motion and sight, irritation, inflammation, oedema, strangulation, and perhaps subsequent disintegration, a tumor which cannot be entirely removed should not be operated unless the unbearable pain, distressing discharge and bleeding compel it; for the condition is generally much worse very shortly after the operation has been performed, and the death of the patient is hastened without compensating benefits.

—o—

No. 527. "The Treatment of Opacities of the Vitreous Humor by Hypodermic Injections of Pilocarpine," by T. J. Tyner, M. D, Austin, Texas.

[Abstract not furnished.]

—o—

No. 528. "Relaciones de la Oftalmometria con la Skiascopia," by Dr. Pedro Lagleyze, Buenos Ayres, Argentine.

—o—

No. 529. "Etiology and Early Management of Glaucoma," by G. E. Dean, M. D., Scranton, Pa.

[Abstract not furnished.]

—o—

No. 530. "Acute Monocular Neuro-Retinitis, with Cases," by B. L. Millikin, M. D., Cleveland, Ohio, U. S. A.

[Abstract not furnished.]

No. 531. "A Contribution to Refractive Errors," by J. C. Morgan, M. D., Philadelphia, Pa., U. S. A.

[Abstract not furnished.]

—o—

No. 532. "The Necessity for Complete Suspension of Accommodation by Mydriatics in the Adjustment of Glasses," by C. C. Savage, M. D., Nashville, Tenn., U. S. A.

[Abstract not furnished.]

—o—

No. 533.

THE RELATION OF SKIASCOPY TO OTHER TESTS FOR THE DETERMINATION OF THE OCULAR REFRACTION.

By H. V. Wurdmann, M. D.,
Milwaukee, Wis.

This paper deals with the method of using the shadow test to best advantage, gives author's valuation of the method. Exhibits convenient skiascope. Tabulated results in comparison to other tests.

—o—

No. 534. "A Few Thoughts about Opthalmometry, as to what the Javal Instrument will do, and what it will not," by Louis L. Lautenback, M. D., Philadelphia, Pa., U. S. A.

[Abstract not furnished.]

—o—

No. 535.

ASTIGMATISM FOLLOWING CATARACT EXTRACTION AND OTHER SECTIONS OF THE CORNEA.

By Edward Jackson, A. M., M. D.,
Philadelphia, Pa.

This condition, though generally recognized, has heretofore received little careful study. A series of cases is reported with reference to its degree; the direction of its principal meridians; the changes undergone; the time at which a permanent condition was reached, and the final amount of it.

Consideration of the cases observed shows it to be due to the bulging of the cornea, brought about by normal intra-ocular pressure at the point weakened by the section. Conclusions of practical importance are reached as to the choice of the form of corneal section, its location, and the proper time to adjust correcting lenses.

No. 536. "Refraction Anomalies of Artists," by J. C. Morgan, M. D., Philadelphia, Pa. U. S. A.

[Abstract not furnished.]

—o—

No. 537. "Further Observations on the Eye of the 'Negro,'" by C. W. Kollock, M. D., Charleston, S. C., U. S. A.

[Abstract not furnished.]

—o—

No. 538. "Exophthalmus Traumaticus," by L. F. Love, M. D., Philadelphia, Pa., U. S. A.

[Abstract not furnished.]

—o—

No. 539.

GRADUATED AND COMPLETE TENOTOMY FOR THE RELIEF OF HETEROPHORIA, WITH A NEW OBJECTIVE TEST FOR USE DURING OPERATION.

By S. Lewis Ziegler, M. D.,

Ophthalmic Surgeon to St. Joseph's Hospital; Assistant Surgeon, Wills Eye Hospital, Philadelphia, Pa.

I have, therefore, devised a test object which will always stand out with great clearness, when used with a red glass and the displacing prism. It consists of a Greek cross cut out of blackened metal and placed over a thin strip of porcelain, behind which is a gas lamp or electric light. The cross is held in place by a blackened metal hood, which serves to conceal the light.

My satisfaction in using this test for operative cases has led me to adopt it for all my heterophoria work. I have also devised a smaller Greek cross, printed in black on cardboard, for use as a near test instead of the Graefe line and ball. I have found the following advantages to accrue from these tests:

(1) The Greek cross test object is easily recognized by the patient, even under partial blurring of vision during tenotomy.

(2) The four arms of the cross attract the attention of the eye separately, causing complete dissociation of the two images, with muscular relaxation. Hence, the tendency to fuse is almost nil, and the deviating error is as great, if not greater, than that shown by any other test.

(3) It is easy for the patient to line up the vertical deviation by the horizontal arms of the cross, and the horizontal deviation by the vertical arms.

(4) The test for near, by the small black cross, is likewise more accurate than any other method, and the error more manifest, for the same reasons that apply to the distance test.

A number of cases of graduated and complete tenotomy for the relief of heterophoria are related, and in conclusion some observations are recorded based on the histories of these cases.

SECTION ON LARYNGOLOGY AND RHINOLOGY.

HONORARY PRESIDENTS:

Dr. Harrison Allen, Philadelphia; Dr. Francke H. Bosworth, New York; Dr. J. Solis Cohen, Philadelphia, Pa.; Dr. D. Bryson Delavan, New York; Dr. J. F. Dickson, Portland, Oregon; Dr. Stephen Dodge, Halifax, Nova Scotia; Dr. W. C. Glasgow, St. Louis,; Dr. Frederick I. Knight, Boston; Dr. Geo. M. Lefferts, New York; Dr. Alvaro Ledan, Villa Clara, Cuba; Dr. John N. Mackenzie, Baltimore; Dr. David Matto, Lima, Peru; Dr. P. Emelio Petit, Santiago, Chile; Dr. John O. Roe, Rochester, N. Y.; Dr. Federico Semeleder, City of Mexico, Mexico; Dr. Chas. J. Sajous, Paris, France.

EXECUTIVE PRESIDENT:

Dr. E. Fletcher Ingals, 34 & 36 Washington St., Chicago, Ill.

SECRETARIES:

Dr. T. Morris Murray (English-Speaking), Washington, D. C.	Dr. F. Marron y Alonso (Spanish-Speaking), Las Vegas, N. M.
Dr. Ovejero [Piedad 22]	Beunos Aires — Argentine Republic.
Dr. H. Guedes de Mello	Rio de Janeiro — U. S. of Brazil.
Dr. G. W. Major	Montreal — Canada.
Dr. Felix Campuzano [Virtudes 33]	Havana — Cuba.
Dr. Luis Fonnegra [Calle 10, número 263]	Bogota — Republic of Colombia.
Dr. Fabricio Uribe	Guatemala City — Guatemala.
Dr. Henri Goulden McGrew	Honolulu — Hawaii.
Dr. Angel Gaviño [Cocheros 15]	City of Mexico — Mexico.
Dr. J. Midence	Leon — Nicaragua.
Dr. Eugenio S. Cassanello [San José 119]	Montevideo — Uruguay.
Dr. Napoleón F. Cordero	Merida — Venezuela.

SECTION ON LARYNGOLOGY AND RHINOLOGY.

No. 551. Paper by Robert Levy, M. D., Denver, Colo.
[Neither Title nor Abstract furnished.]

—o—

No. 552.

THE RELATION OF DISEASES OF THE RECTUM TO NASAL CATARRH.

By W. John Harris, M. D.,
St. Louis, Mo.

Will present facts going to show the intimate relation of the mucous membrane of the alimentary canal, and especially of the rectum, with the mucous membrane of the respiratory organs.

Will give illustrations going to prove that there is a direct sympathy between the sphincter ani and the act of respiration.

Will give illustrative cases to prove that in the majority of cases of chronic nasal catarrh there will be found some abnormal condition of the rectum.

Cases reported going to show that until papillae, pockets and hemorrhoidal tumors had been removed it was impossible to cure the local nasal disease.

That by curing the disease of the rectum, removing any obstruction to the circulation there, it will be found much more easy to remove the attending chronic nasal complication.

—o—

No. 554.

MYCOSIS OF THE PHARYNX.

By William C. Glasgon, M. D.

Mycosis of the pharynx has been recorded by all writers as a rare form of disease. Since the advent of the pandemic of influenza, or grippe, it has been seen more frequently. Between the years 1870 and 1890 only two cases of mycosis came under the observation of the writer; since 1890 the number of cases has been increased to eight.

The affection consists essentially in a growth and development of the leptatrix buccalis. The spores of the organism become fixed in certain parts of the fauces, and finding a suitable soil, they grow and multiply, forming masses of such size that they are visible to the eye. In the beginning they appear as minute white specks; these enlarge their area until they form masses the size of bird-shot. The spots of mycosis do not coalesce; each point remains isolated with normal membrane between. The spots present different appearances in different cases; some are soft and friable, and when raised above the surface can readily be removed. In other

cases they assume the form of horny filaments, which become deeply rooted in the mucous membrane, and can only be removed by forcible extraction. They are found most frequently on the tonsils. The small whitish projections may be limited in number or they may largely cover the tonsil. However numerous they may be, each spot is isolated, and they never form a continuous mass. The glandular tissue at the base of the tongue is the next most frequent site; the growth here may be very exuberant, the masses attaining the size of a pea. The posterior pharyngeal wall is the least frequent site of its occurrence. Here it presents the appearance of minute white points, rarely forming masses. In some cases the mycosis involves all parts of the pharynx, distributed over the tonsils, the base of the tongue and the posterior pharynx.

The symptoms of pharyngeal mycosis are often negative. In many cases the spots are accidentally discovered through inspection, and in others the symptoms are vague and trifling. The most common symptom observed by the writer has been a feeling of stiffness of the fauces, very appreciable in swallowing. In one case there was a paroxysmal violent cough, but this was evidently caused by laryngeal irritation, as it soon disappeared, while the spots of mycosis remained unchanged.

The causes of mycosis pharyngia are still uncertain. The constant pressure of the leptatrix in the mouth and the comparative rarity of the mycotic spots in the fauces leads the writer to think that some peculiar condition of the mucous membrane is a necessary factor in its development, and that it only exists when the membrane presents a soil which favors its growth and development. The great increase in the number of cases since the advent of the influenza seems to indicate that the peculiar condition of the mucous membrane in influenza has largely favored its development. Some writers have claimed that a condition of malnutrition with an impaired state of health may be considered as a provoking cause. Others have claimed causative relation, between disturbances of digestion and mycosis. These views are not in accordance with the experience of the writer. Each of the eight cases seen were in good health and perfect bodily vigor; there were no symptoms of impaired digestion or malassimilation. Four of these cases were females between the ages of seventeen and thirty-five; four were males between the ages of sixteen and forty-five. It is a noticeable fact only two of the eight cases occurred in hospital practice, among which class of patients conditions of mal-nutrition are more apt to be found.

Mycosis of the pharnyx can only be confounded with checsy masses in the crypts of the tonsils and follicular disease of the throat. The ease with which the cheesy masses may be expressed from the crypts of the tonsils is in striking contrast to the fixation of mycotic masses. Certain cases of follicular disease of the throat show a similarity to mycosis. This is especially the case when the follicles of the posterior and lateral pharynx are involved. The constant presence of inflammation of the mucous membrane in follicular disease and an entire absence of inflammation in mycosis are distinctive of the two diseases. The exudation of follicular tonsilitis is a yellowish white; it frequently becomes confluent, and upon the application of the salts of iron it is readily disintegrated and may be largely removed.

The treatment of mycosis of the pharynx consists in the destruction of the organism either by the galvano-cautery, or the acid-cautery, or forcible extraction with the forceps, where the growth has assumed a horny, thread-like character. In some cases the spots must be well scraped with a sharp curette and the caustic, either tri-chloracetic acid or chromic acid freely applied to the surface; in others, the galvano-cautery point may be pushed deep into the spot after the soft superficial portion has been rubbed off. In case the horny filaments are present in the growth, forcible extraction with the forceps is an effectual but painful measure.

According to the writer's experience, constitutional treatment has been of little value. Some writers have advised cigarette smoking as a remedy. One of the cases seen by the writer

was an inveterate smoker; nevertheless, extensive mycosis on the tongue and tonsils was developed. The use of antiseptic washes has seemed to the writer to be of use in preventing the spread of the organisms. A saturated solution of boracic acid has given best results. The treatment is always tedious, with a tendency to recurrence until all evidences of the disease have been eradicated.

The following cases came under the observation of the writer:

Case I. A negro coachman, aged thirty, in good health. Mycosis confined to one tonsil. Came under observation on account of an attack of acute pharyngitis. Was under observation only a few days, then disappeared.

Case II. A lady of twenty-one years, in good general health. She complained of soreness and stiffness of the throat. Mycosis was confined to the right tonsil. Applications of iron and iodine preparations gave no relief. Solutions of nitrate of silver were also used without avail.

Case III. A lady, aged thirty-five, in perfect physical condition. There were no symptoms, and the white spots had been accidentally discovered. The mycosis was confined to one tonsil, which was the size of a small almond. The tonsil was sharply curetted and trichloracetic acid applied. The treatment was effectual, and there has been no recurrence of the mycosis.

Case IV. A laboring man, aged twenty, complained of soreness of the throat. Each tonsil was sprinkled with mycotic spots. After the tonsils had been curetted, chromic acid was applied, causing an entire disappearance of the spots.

Case V. Man, forty-eight years, complained of a slight uneasy feeling in the throat. Being a very nervous person, the presence of the white spots gave him great anxiety. His general physical condition was perfect, and there were no symptoms of indigestion. He indulged freely in tobacco, both cigars and cigarettes. In this case the mycotic spots were situated on each tonsil, in the follicles at the base of the tongue, with a few scattered on the lateral wall of the pharynx. The organism on the tongue was exuberant and of soft consistency. On the tonsils there was a mixed variety; some portions soft, and others tough and horny, protruding from the surface in distinct filaments. In this case chromic acid, the chloracetic acid and iodine was applied, without result; afterwards the horny masses were extracted with forceps, and the galvano-cautery point applied to the remaining spots. After the greater number had disappeared, a sharp attack of pharyngitis seemed to cause a second growth. They were again removed in a similar manner, and so far there has been no recurrence.

Case VI. A lady, thirty years old, noticed the spots in her throat, but experienced no distress. The mycosis was confined to the tonsils. The horny growths were extracted with the forceps, and the remaining growths were touched with the galvano-cautery.

Case VII. A young lady, seventeen years of age. Mycosis confined to the tonsils. Each tonsil was curetted and the chloracetic acid applied. In this case a constant tendency to recurrence has been observed.

Case VIII. A boy, sixteen years of age, sought advice on account of a paroxysmal cough. He was not conscious of anything abnormal in his throat. On laryngoscopic inspection, a sub-acute laryngitis was discovered, and in the fauces numerous spots of mycosis were discovered. They were thickly sprinkled on the posterior and lateral walls of the pharynx; a few were found on the tonsils; a number on the base of the tongue. Under appropriate treatment the cough and laryngeal irritation disappeared. The spots of mycosis, however, proved very obstinate to treatment, and it was only after several months that they disappeared, from frequent application of the galvano-cautery, chromic and the chloracetic acid.

No. 555.

THE EASIEST AND MOST PRACTICAL MEANS OF MAKING GALVANO-CAUTERIES, ESPECIALLY TO TURBINATE HYPERTROPHIES.

By Arthur G. Hobbs, M. D.,

Member of American Medical Association, Ex-President of the American Rhinological Association, Member of the Georgia State Medical Association, and Fellow of the Atlanta Society of Medicine, etc., Atlanta, Georgia.

The little apparatus that I am using for galvano-cautery and magnet operations is the only perfect instrument in my knowledge for these purposes.

It is contained in a rosewood box eight inches long, four inches thick and four inches deep and is secured to the wall at a convenient distance from the operator's chair. The wires from an alternating current of fifty-two volts, the most generally used circuit, particularly in the medium and smaller-sized cities, are brought into the operating room from the street and attached to one end of this little box.

The conducting *wires are similarly* attached to the other end. The apparatus is now ready for the cautery operation, and more than this it remains always and ever ready, in no way requiring the attention of the operator at any time. When the proper cautery point is attached, through the handle of the conducting wire, it is necessary only to turn a screw projecting from the nearer service, with the left hand, to use any number of volts, or to raise the cautery point to any degree of heat desired. In short, the little apparatus is simply a gauge for measuring out the exact quantity of electro-motor force in the form of heat that may be needed for each particular case.

I have used these instruments in my own and assistants' rooms, perhaps a thousand times during the year that I have had them, and in no instance have they failed me or caused me any care or trouble.

The needle and a very narrow blade are the only cautery points ever used in my office and in all cases they are made to enter at the most prominent point of the hypertrophied tissue, penetrate to the bone when a white heat is reached, then withdrawn through the same puncture while the point is still hot. In no case is a wholesale destruction of mucous membrane ever produced by applying the flat surface of a blade to the protruding part.

When an application of a twenty per cent solution of cocaine has been applied on a cotton tampon ten minutes before the operation, there is but little pain and indeed, in many instances, none.

———o———

No. 556. Paper by W. H. Daly, M. D., Pittsburg, Pa.
[Neither Title nor Abstract furnished.]

———o———

No. 558. "Formate Soda in Laryngeal Disease," by E. L. Shurly, M. D., Detroit, Mich.
[Abstract not furnished.]

———o———

No. 559. Paper by G. B. Lawrason, M. D., New Orleans, La.
[Neither Title nor Abstract furnished.]

No. 560.

THE UTILITY OF THE ELECTRO-CAUTERY SNARE.

By Hanau W. Loeb, M. D.,
St. Louis, Mo.

In certain operations upon the nose and throat, the writer insists that the electro-cautery snare is vastly superior to any other instrument, especially where the following are desired:

(1) No hæmorrhage.
(2) Celerity of operation.
(3) Accuracy in removal.

The electro-cautery snare is therefore of utility in the following:

(1) Removal of nasal polypi.
(2) Removal of redundant nasal mucous membrane.
(3) Removal of tonsils.
(4) Removal of the uvula.

(1) The advantages of this instrument over the cold snare so generally in use for the purpose of removing nasal polypi may be summed up as follows: It is just as easy to engage the electro-cautery snare as the cold snare; the removal is accomplished with far greater rapidity; there is no hæmorrhage; the after effects are no more severe; more polypi can be removed at one sitting; there is less pain, as before the effect of the primary application of cocaine has worn off the operation may be completed.

Compare with the advice, found in so many books, to the effect that from fifteen to thirty minutes should be consumed in the removal of a polyp, the fact that the electro-cautery operation is instantaneous. One should not lose sight of the good effect of cauterizing the base of the polyp incident upon the use of the electric snare.

(2) In regard to the removal of redundant mucous membrane, a similar condition of things prevails. The greater liability to hæmorrhage and the greater tediousness of the cold snare operation render the use of the galvano-cautery snare all the more imperative.

(3) Tonsillar hæmorrhages are rare but they are not so infrequent as to cause those who operate often to lose sight of their possibility. All operations with the tonsillotome permit, without restraint, any bleeding, capillary, arterial or diathetic. The electro-cautery snare is the only instrument which can prevent these hæmorrhages, be they trivial or serious. This same instrument offers in tonsillotomy greater precision; the operator may engage in the snare as much as he wishes and therefore can be exact in so far as removal of tissue is concerned. After effects are no more severe than with other instruments.

(4) In uvulotomy the electro-cautery snare is convenient of application—the uvula being permitted to fall into the loop and removal soon accomplished—no slipping, no pulling down of the mucous membrane, no accidental cutting the uvula where it was not intended. Patients seem to get along better after this than after cutting operations. They are able to eat with greater ease, healing is more rapid and a good stump always remains.

The electro-cautery snares which have been in use are open to objection on the score of lack of cleanliness and by reason of the great amount of wire required to form the loop. The writer presents his own electro-cautery snare which he exhibited before the Laryngological Section of the American Medical Association, in 1892, and which negatives these objections. Every portion of the instrument is separable, the canulæ, the copper wires, the ivory tip and the rubber insulation.

By means of two stout copper wires, which pass through the canulae and which are supplied with an eyelet in the end, a substantial loop may be made out of a small piece of steel

wire. As the instrument may be entirely taken apart and cleaned before and after every operation, it fulfills the requirements of modern antiseptic surgery. The rubber insulation is a great advantage over the silk and cotton used in other snares.

Objections, which are valid, have been urged against batteries of all kinds—they are seldom reliable for more than a year. In view of this fact, an instrument should be used which makes the ordinary street current available for cautery work. Such an instrument is the Aloes (St. Louis) Converter, which, in the writer's experience, has never failed a single time to act properly and happily in any cautery operation.

——o——

No. 561. Paper by JONATHAN WRIGHT, M. D., Brooklyn, N. Y.
[Neither Title nor Abstract furnished.]

——o——

No. 562. Paper by JOHN N. MCKENSIE, M. D., Baltimore, Md.
[Neither Title nor Abstract furnished.]

——o——

No. 563.

REFLEX EPILEPSY FROM INTRA-NASAL DISEASE.

BY DR. JOHN O. ROE,
Rochester, N. Y.

Résumé:

(1) That epilepsy is a frequent result of peripheral irritation, which may be excited by a local disturbance affecting the peripheral nerves in any portion of the body.

(2) That the susceptibility to peripheral irritation varies greatly in different persons, as is shown by the fact that irritation of the same kind or degree will not always cause the same amount of central disturbance, or may develop reflex disturbance of an entirely different character.

(3) That the nose is frequently the seat of sufficient irritation to excite a variety of reflex manifestations; that these disturbances may be confined to the brain centres, manifested in epileptic convulsions, or they may be reflected to other peripheral organs, giving rise to manifestations of an entirely different character.

(4) That in the nose there are well-defined sensitive areas, which are more readily stimulated by diseased conditions or by irritants introduced from without, than other portions of the nasal cavity.

(5) That these areas are rendered inordinately sensitive to irritation by abnormal conditions in the nose, frequently independent of "neurotic habit."

(6) That the undue susceptibility of these sensitive areas and the production of reflected disturbances—and especially those of epilepsy—is more often excited by intra-nasal pressure than by any other local condition.

(7) That the frequency with which epilepsy has been found to result from intra-nasal disease emphasizes the importance of interrogating the nose in all cases of epilepsy, and especially in those in which the cause is in any manner obscure.

(8) Citation of illustrative cases.

No. 564. Paper by CHARLES H. KNIGHT, M. D., New York City, N. Y.
[Neither Title nor Abstract furnished.]

—o—

No. 565. Paper by ALEXANDER MACCOY, M. D., Philadelphia, Pa.
[Neither Title nor Abstract furnished.]

—o—

No. 567.

A CASE OF ANGIOMA OF THE NASAL SEPTUM.

BY F. C. COBB,
Boston, Mass.

The patient, a girl of fifteen years, was examined at the Massachusetts Hospital in October, 1892. She complained of obstruction of, and bleeding from, the right nostril, with a duration of six months. There had been no sneezing, and only occasionally a yellow, thick discharge from that nostril.

Her general condition was anæmic; she was subject to headache, and exhausted by slight exertion.

Examination showed a small growth attached by a thin pedicle inserted into the septum of the right nostril, above the end of the lower turbinated bone near the junction of the skin and mucus membrane. The growth was soft, its base dotted with a few small blood clots. It moved backwards and forwards with respiration, but did not pulsate.

The right nostril was slightly atrophic, otherwise the upper air passages were normal.

The growth was removed, with very slight hæmorrhage, with the aid of the Hooper snare and écraseur.

The base was not cauterized, and the site was completely healed in a few days.

In June, 1893, she reported that there had been no recurrence.

The growth was submitted to Dr. Whitney, pathologist to the hospital, from whom the following report was received:

"Growth with large vascular sinuses with more or less round cells about—cavernous angioma."

In looking up the literature of Nasal Angiomata, one is struck by the lack of pathological accuracy shown by the reporters of cases.

Sutton, Ziegler, Birch-Hirchfeld and other pathologists agree that angioma may be defined as a new growth of blood vessels held together by a slight reticulum of connective tissue.

The cases reported are those of Verneuil, Wagner, Steinbrügge, Seiler, Bichet, Roe, Jarvis, Vanderpoel, Burckhardt, Nelaton, Huguier, Panas, Guyon, Dumenil, Delavan, Boef and Luc.

There were in all nineteen cases.

There was no microscopical examination in six cases, viz., those reported by Dumenil, Verneuil, Seiler, Panas, Guyon and Vanderpoel.

In five cases the growths contain myxomatous tissue, and are not therefore pure angiomata. These cases were reported, two by Wagner, two by Luc and one by Delavan.

Three cases, those of Bichet, Huguier and Boef, were probably fibromata rather than angiomata.

We have, then, left the cases of Richet (reported by Bazg), Steinbrügge and Burckhardt (which I could not find), Roe, Jarvis and Nelaton.

Richet's case contained embryonal and fusiform cells in large quantities.

It was therefore probably an angio-sarcoma.

Roe's case was, by microscopical examination, an angioma, but it subsequently degenerated into an angio-sarcoma.

Nelaton's pathological description is not characteristic enough to class this tumor among the angiomata; while in the case of Jarvis no pathological description, but only the diagnosis, was given by the microscopist.

As a further proof of the rarity of this affection, I would say that, in an examination of 7429 cases in the Massachusetts General Hospital records, I have found no other case.

With regard to the symptoms, the only two of importance are hæmorrhage from and occlusion of one nostril.

In all the reported cases a mere examination of the growth with probe or finger caused extensive hæmorrhage.

As regards prognosis, it is evident from Roe's case that a pure angioma may degenerate into a malignant growth.

The diagnosis of pure angiomata can only be made by careful microscopical examination.

In the treatment of these growths we are met with less difficulty, since all the recent authors seem to consider the snare, if used slowly, as the safest instrument.

The length of time to be consumed in removal should depend upon the thickness of the pedicle.

In Roe's case three hours were consumed in removal of the growth, the hæmorrhage being very slight.

Jarvis and Luc got no hæmorrhage with slow snaring, but considerable from more rapid use of the instrument. The former used his own snare and écraseur; the latter, the galvano-cautery wire.

In my own case, I attribute the slight hæmorrhage to the thinness of the pedicle.

—o—

No. 568.

A CASE OF ELONGATION OF THE EPIGLOTTIS, REDUCED BY OPERATIVE MEASURES.

By Dr. Price-Brown,
Toronto.

On February 27, 1893, Miss W., æt. 23 years, tall and slight, presented herself for treatment. Father's family tuberculous. Father and mother both living and healthy. Two brothers died of consumption between the ages of twenty and thirty years. Patient had been delicate from infancy. Family physician affirms that the apex of left lung had been diseased twice. During childhood respiration was always whistling. Throughout life patient has been subject to throat colds, always attended by hoarseness, and sometimes by complete aphonia, lasting from one to two weeks at a time. There has, likewise, always been great difficulty in freeing the throat from mucous.

Two years ago her physician sent her to Colorado Springs for six months. She returned improved in general health, but without material change in throat symptoms.

When she came to me she had been free from cold for several weeks. On examining the throat with the laryngoscope, what could be seen of the larynx appeared perfectly healthy. The epiglottis, however, which was long and narrow, with the end turned up, lay in a horizontal position, the whole of the free end pressing against the posterior wall of the phalynx, during ordinary respiration the air passing up and down through the open sides. At forcible respiration the epiglottis was varied slightly, seemingly enough to admit the passage of a knife blade. The whole of the larynx was deeply seated and the vocal cords quite invisible. It required two and a quarter inches, from the right angle of a probe, to reach the tip of the epiglottis.

As the patient was tractable, and a good view of the parts could be obtained, I considered the case a good one for operation, always using a fifteen per cent solution of cocaine. On March 1, the first tentative touch with galvano-cautery was made. There was but slight reaction. On March 4, during forcible breathing, I slipped the galvano-cautery blade between the epiglottis and post-pharyngeal wall. Then drawing the former forward, so as to free the calter, I cauterized the central portion and left side of the tip. The operation was followed by limited sloughing and acute congestion of a mild type. There were two subsequent cauterizations, one on the eighteenth and the other on the twenty-ninth; and the patient was allowed to return to her home, 100 miles away on April 1. Throughout the treatment albolene sprays were used to the throat several times a day.

The shortening of the epiglottis amounted to about one-fourth inch; and there was a perpetual niche of one-eighth inch. As there was, however, still a protruding corner, and the finish was not as æsthetic as one would like, I desired the patient to recuperate for a couple of months and then return. She accordingly came back for treatment on June 6. The epiglottis had entirely healed and she had been quite free from hoarseness. At two sittings, with an interval of three days, I touched the remaining projections with the galvano-cautery. The healing was more rapid than formerly, and in ten days the patient was well enough to return home. The sloughs had separated; the epiglottis was uniform in length and regular in outline; and although the organ was still horizontal, the vocal cords could for the first time both be seen.

—o—

No. 569. Paper by Dr. Edward O. Clyer, Buenos Ayres, Argentine Republic.
[Neither Title nor Abstract received.]

—o—

No. 570.

SOME OF THE THROAT CONDITIONS OBSERVED IN GOUTY SUBJECTS.

By Solomon Solis-Cohen, A.M., M.D.,
Professor of Clinical Medicine and Applied Therapeutics in the Philadelphia Polychnic, etc.

The term "gouty subjects" as used in this paper applies not only to those who have had attacks of acute gout, or those who exhibit the characteristic deposits of chronic gout, but also to the much larger number who suffer with the varied and often obscure symptoms of "lithemia," with a more or less constant tendency to excess of oxalates, phosphates, urates and uric acid in the urine. In both classes of patients the upper air passages are frequently affected; and while the gouty diathesis cannot be affirmed to be the sole cause of the local manifestations, it doubtless acts both as a predisposing and modifying influence. A large number of cases by different observers would have to be recorded in detail and carefully analyzed before characteristic signs of throat-gout could be laid down. In most, if not in all, cases, the condition is a chronic one,

with tendency to paroxysmal exacerbation. Attention being first directed to it during a period of intensification, it may be mistaken for an ordinary form of acute inflammation, and the diathetic origin overlooked. Inflammation, however, is not a necessary feature of the case. In the author's experience, the most prominent symptoms are sensory; pains and perverted sensations of various kinds being referred to circumscribed regions, often described as "spots," in which no adequate structural alteration is obvious. These spots are often, but not invariable, painfully sensitive to the touch, and can be accurately localized; in some cases pain is referred to a part apparently unrelated with the one touched; but the association is constant.

Sometimes, more especially during an acute paroxysm, these spots are characterized by the junction of several dilated blood vessels; sometimes a single blood vessel is prominent; sometimes there is a dusky coloration of the mucous membrane; sometimes an enlarged and reddened follicle, but often there is no apparent difference from the surrounding membrane. In the larynx the epiglottis and the arytenoid eminences seem the favorite seats of morbid sensation; the former usually exhibiting a network of dilated vessels, resembling a veil; the latter a slight tumefaction and reddening. In some cases during the more acute stage there is a diffuse laryngitis with characteristic coloration and tumefaction—a "corned-beef" appearance. In the pharynx, the tonsillar and peritonsillar structures, and the angles of junction of the postero-lateral walls have seemed to be most frequently affected. There may be enlarged glands. The tongue and its glands are often involved. The buccal mucous membrane sometimes presents whitish patches. When the distressing sensations are referred to the rhinopharynx, Luschka's tonsil may be tumefied and reddened. Noises and peculiar sensations in the ear are usually to be explained by tubul catarrh and gouty changes in the drum membrane.

In young patients, the pharynx and larynx are often covered with a grayish tenacious mucus; in those past middle life the pharyngeal membrane is more often dry and pale, exhibiting a network of enlarged and tortuous vessels, or mottled with livid patches. Spasmodic obstruction to nasal respiration with or without accompanying coryza, spasmodic choking in swallowing and spasmodic obstruction to voice and to laryngeal or bronchial respiration have been observed in a few cases.

The diagnosis depends on urinalysis and associated symptoms of gout or lithemia. Local treatment must be of the mildest character, and is palliative only; for permanent relief of greater or less degree, dependence must be placed on dietetic, hygienic and medicinal measures appropriate to the gouty state.

———o———

No. 571. Paper by C. E. Bean, M. D., St. Paul, Minn.

[Neither Title nor Abstract furnished.]

———o———

No. 572. "Effects of Improper Tone-Production on the Vocal Cords of Singers," by H. Holbrook Curtis, M. D., New York City, N. Y.

[Neither Title nor Abstract furnished.]

———o———

No. 573.

THE ULTIMATE PROGNOSIS IN NEGLECTED ADENOID HYPERTROPHY.

By D. Bryson Delavan, M. D.,
New York.

Synopsis.—Does adenoid hypertrophy, if left to itself, disappear, leaving the pharyngeal vault in a normal, healthy condition?

Generally speaking, it does not, but remains under some pathological state, which may continue throughout the life of the patient.

(1) The enlargement may not entirely subside, and a degree of hypertrophy sufficient to cause serious injury and annoyance may continue to exist for many years.

(2) The so-called "Thornwaldt's Disease" appears to be nothing more than neglected adenoid hypertrophy.

(3) Disappearance of the hypertrophy may be attended with an atrophic condition of the vault of the pharynx, the result of which is a pathological state, detrimental to the patient and difficult to cure.

The above conditions may influence not only the locality in which they arise, but may have far-reaching and disastrous effects upon other organs. The ultimate prognosis as to the local condition, therefore, in cases of neglected adenoid hypertrophy is unfavorable.

——o——

No. 574.

REPORT OF A CASE OF MYXO-SARCOMA OF THE NASAL CAVITY.

By C. W. Richardson, M.D.,

Professor of Laryngology and Otology, Medical Department, Columbia University.

The interesting features in the case are numerous. The development of the growth, as noticed by the parents, was from early infancy. The age of the child at the time of operation interference, was only four years and nine months. The enormous size of growth, filling out as it did, the nasal and pharyngeal cavities. The complete absence of hemorrhage previous to, and the small amount at the first removal of the growth. The rapid reproduction of growth—it filling out the left nasal cavity within four days after a most searching and thorough removal. From a pathological point of view it presents an interesting feature in the presence of single fibres of striated muscular tissues here and there disseminated throughout the growth. The growth was first removed by snare but on its rapid reproduction a more radical procedure was adopted. The second operation was that of Billroth's for resection of the superior maxilla. Recovery was complete. Recurrent followed in four months in the pharynx and lymphatic glands of the neck. Result death.

——o——

No. 575. "Surgical Treatment of Empyema of the Maxillary Sinus," by Dr. Edward Obejero, Buenos Ayres, Argentine Republic.

[Abstract not furnished.]

——o——

No. 576.

REPORT OF A CASE OF TUBERCULAR LARYNGITIS TREATED IN COLORADO SPRINGS.

By S. E. Solly, M.D.

The author reports the cases of tubercular laryngitis which he has treated, and been able to follow out so as to report definitely concerning results, while practicing in Colorado Springs.

Forty-five cases showed decided evidence of tubercular laryngeal affection, among a continuous series of 250 cases of phthisis. Many other cases were seen and treated but were not seen for a sufficient length of time or often enough to give results. In order to give sufficient time for results no cases have been taken of phthisis or laryngitis that were seen for the first time less than two years ago. A comparison of the general symptoms, history, and results of the 250 cases, with those reported on in this climate and in the Swiss Alps at a similar elevation, show them to be average cases. Also a like comparison of the laryngeal cases with those of well-known observers, with the exception of results, indicates a common natural history. No statistics of results could be obtained, though occasional cures are referred to, and the disease is supposed to be necessarily fatal with a few striking exceptions.

Among the 250 cases of phthisis there were forty-five with tubercular laryngitis, twenty-eight per cent, twenty-five with infiltration without ulceration and twenty with both, that is eight per cent.

The average duration of the twenty-five cases without ulceration from their first symptoms up to the time of this report or death was six years, while of eight of these who got worse it was three years and ten months. Of the twenty cases with ulcers the average duration was three years and two months. While of fifteen of them that got worse it was two years.

After taking all the laryngeal cases that deteriorated, the average duration of life was two years and seven months. Bosworth says the average duration of all cases with laryngeal tuberculosis is about two years. Forty-eight per cent of all the laryngeal cases improved. There was sixty-eight per cent of improvement among the non-ulcerated cases and twenty-five per cent among the ulcerated cases.

In considering the improvement in the throat alone, in 64.2 per cent of the whole forty-five laryngeal cases there was local permanent arrest and besides in five more cases there was well-marked temporary improvement.

Among the non-ulcerated alone the local improvement was sixty-eight per cent.

Among the twenty ulcerated cases fifty per cent healed and remained healed while three additional cases healed temporarily. Of these twenty cases in twenty per cent the lungs were in the last stage of tuberculosis, fifty per cent of whom were generally improved, and in seventy-five per cent there was local arrest of the laryngeal disease. Thirty per cent were in the second stage of pulmonary tuberculosis, of whom 16.6 per cent were generally improved, 66.6 per cent having arrest of throat disease.

Fifty per cent were in the third stage as regards their lungs and showed twenty per cent of general improvement, while in thirty per cent of them there was arrest of the laryngeal complication.

The ulceration in thirty per cent was found in the commissure, of whom 33.3 per cent improved.

Upon the arytenoids in forty-five per cent with none improved.

Upon the false chords in twenty per cent none improved.

Upon the epiglottis in thirty per cent seventeen per cent improved and upon the true chords in fifty per cent of whom thirty per cent improved. In the majority the ulceration was not limited to any one of those parts. The author believes these cases would not have shown such good results even in the Colorado climate without careful local treatment though it was shown that similar treatment had been skillfully applied in a low climate and had failed in most cases. As a general principle stimulation is preferred to sedation, while cleanliness is of the utmost importance and a variety of drugs and methods are called for and useful in their turn.

No. 577.

SARCOMA OF NASO-PHARYNX, WITH REPORT OF CASE.

By Dr. James E. Logan,

Kansas City, Mo.

J. N. T., age forty-four, school teacher, consulted me June, 1888, presenting the following history. Up to the age of forty was very robust; was then taken with typhoid fever. Shortly after recovery, he noticed what he called a "fullness in the upper part of throat," accompanied by considerable secretion of saliva. This condition grew steadily worse, and in a few months he was unable to breathe through the nose, could scarcely speak, and often felt on the point of suffocation. His general health was much impaired, and the discharges had become excessive and fetid.

He applied to a local practitioner, who found a tumor in the throat projecting into the pharynx below. Not wishing to operate himself, he referred the patient to a surgeon in our city. This gentleman, as I understand, pronounced the growth a *fibroid* tumor. He removed it and dismissed the case as cured. There was a temporary improvement in the patient's general health; but he soon lost appetite, became emaciated, and his former symptoms returned with frequent hæmorrhages, and, for the first time, some pain, not acute, referable principally to the left ear. The surgeon again examined him, and discovered that the tumor had returned. This time he diagnosed it as sarcomatous in nature. He prescribed a tonic treatment, hoping to build up the general health before attempting a second operation; but the tumor grew so rapidly that he was forced to remove it while the patient was still very weak. There were no glandular complications, and but little pain. This second growth was removed by means of a wire écraseur. The patient reports the operation as very bloody, the hæmorrhages continuing for several days. He rallied slowly, but for five months enjoyed comparative immunity from his trouble. Then the symptoms again returned, and another operation took place. This went on until he had submitted to nine such operations. He then concluded to apply to a throat specialist.

I examined him and found a tumor, perhaps twice as large as a partridge egg, situated partly upon the roof of the pharynx and extending down a quarter of an inch along the posterior wall of the naso-pharynx. It appeared slightly lobulated, and was firmly attached to a large base. Patient's general condition was much below par. He was somewhat cachectic, and suffered considerable pain in the ear and in the back of head. Digital examination of tumor provoked profuse hæmorrhage.

I tied back the soft palate, applied a ten per cent solution of cocaine, and divided the growth into three sections. One of these I removed at once with the galvano-cautery. Very little hæmorrhage followed. I applied per-sulphate of iron to the cauterized surface and sent the patient back to the hospital.

I saw him daily, but applied no treatment except a spray of warm Dobell's solution. No extensive suppuration followed. In a week he came to my office, and I then removed the remaining sections, which by this time were much reduced in size. The surface healed readily. The tumor was examined by several pathologists, who all pronounced it a *round-cell sarcoma.*

The growth has not returned, and the man is to-day in perfect health.

No. 580. "Alumnol in Diseases of the Throat and Nose," by J. Mount Bleyer, M. D., New York City, N. Y.

——o——

No. 582.

SOME FORMS OF NASAL REFLEXES, AND REPORT OF CASES.

By S. K. Merrick, M. D.,

Professor of Diseases of the Nose, Throat and Chest, Baltimore Medical College.

While a few medical men are somewhat skeptical as to the connection between the treatment of certain intra-nasal conditions and the cure of so-called reflex affections in some more or less remote portion of the body, so many cases have been reported, covering such a wide field, by so many trustworthy observers, that I take it that the great body of intelligent physicians, among throat specialists at least, are a unit practically in believing the connection very close.

Until within a comparatively recent date, few cases of nasal reflex disease were recorded in medical literature. It would carry us far beyond the limits of this paper to refer to the names of *all* who have done good work in this field of investigation, yet it may not be amiss to mention those of a few whose labors have thrown special light upon this interesting subject.

Voltalini seems to have been one of the first writers to call attention to the nasal reflex, in 1872, when he reported a case of spasmodic asthma, dependent on a nasal polypus, the removal of which effected a cure. This observation has since been abundantly verified.

Seiler, Hack and Jno. Mackenzie subsequently brought out the fact that reflex cough was present in a certain per cent of nasal diseases. Ocular disturbances, due to intra-nasal disease, were forcibly set forth by Dr. Grueining, of New York, in a paper read before the Academy of Medicine, April, 1886. Beverly Robinson, Cheatham, and Bettman have also reported similar cases of eye troubles of nasal origin.

Hack, in his well-known monograph, reports a large number of nasal reflexes, such as gastralgia, dyspepsia, cardiac palpitation, salivation, neuralgia, cephalalgia, migraine, ciliary neuralgia, photophobia, vertigo, and some others.

Bosworth reports cases of salivation, chorea and epilepsy cured by treatment of intra-nasal diseases, of which they were reflexes. Salinger and Fincke also report cases of epilepsy. F. A. McBride reports a case of psychical epilepsy, and Tesin a case of nocturnal enuresis.

Many others have reported nasal reflexes covering a wide field, but the foregoing names and cases are sufficient to emphasize the reliability of the observations, and the fact that a great variety of affections may be due to intra-nasal disease.

Dr. McBride, of Edinburgh, has raised the question, "whether the cure of the local condition within the nose or the counter-irritant action of the application" controls the reflex. Bosworth cites Bourchard, as quoted by Rualt (in support of the counter-irritant action), who cured a case of sciatica by cauterizing the lobe of the ear.

The question of "moral effect" has very naturally been invoked to explain many of these cures, yet I believe, with Bosworth, that while it may have some force, it is secondary in most cases, but may be, I think, the chief factor in a small per cent of cases.

The cure of intra-nasal disease is responsible, undoubtedly, for most of the successful results.

There are, then, three *chief* views held as to just how these reflexes are cured, viz.:

(1) By cure of intra-nasal disease.

(2) By counter-irritation.

(3) By moral effect.

That none of these is wholly true or entirely false I firmly believe, as the following cases will verify:

Cases I. and II. show that reflex eye troubles were relieved, not suddenly, but when the local intra-nasal condition was cured.

Case III. A case of reflex headache and vertigo was relieved by the counter-irritant action of the cautery *before* the local disease of nose was favorably affected.

Case IV. A case of sciatica, cured almost immediately on cauterization of the turbinates, was doubtless relieved by the "moral effect."

———o———

No. 583.

HYSTERICAL APHONIA AND DEAFNESS.

By E. Fletcher Ingals, A. M., M. D.,
Chicago, Illinois.

Hysterical aphonia is so common that little of interest can be said concerning it. But hysterical deafness is comparatively rare. I find reports of a few cases, but have never met with it myself excepting in a single instance, a brief history of which I think will be of interest to this Congress. The case is that of Miss P. A. J., aged twenty-three years, and a teacher by profession, who recently came to America from Ceylon. She had been annoyed for three years by weakness of the voice, and sometimes by complete aphonia. About two years ago, while making an ocean voyage, she was greatly alarmed by a rat springing upon her. Immediately thereafter she lost the sense of hearing, and since that time has been so deaf that she could not hear ordinary conversation, and could only understand when addressed in very loud tones with the person's lips close to her ear. She had been slightly deaf before the fright, but the symptom was greatly increased immediately afterwards.

When she came to see me in the early part of July, 1893, she was still extremely nervous, and complained of dryness of the throat, inability to speak excepting in a whisper, and deafness so great as to require shouting to enable her to hear. Her general health was good; there was no history of predisposition to disease; pulse 100, temperature 100; no cough nor expectoration; appetite fair and digestion normal. The hearing tested by an ordinary watch showed that no sounds whatever were appreciated even when the watch was placed in contact with the ear or temporal bones. The left membrana tympani was considerably thickened; the right normal. There was no congestion of the larynx and the cords were well approximated on attempted phonation, but this position could not be maintained. She talked only in a whisper, but upon directing her to sound the letter *a*, while examining her larynx I found that she could easily produce loud sounds. I applied a mild astringent spray to the larynx and a spray of menthol, five grains to the ounce, to the Eustachian tubes through the naso-pharynx, the application being made by a long-tipped Davidson's No. 59 atomizer, which was introduced back of the palate, the spray being driven in with an air pressure of fifteen pounds, while the nostrils were tightly held.

She was given internally berberin muriate gr. i, ext. of valerian gr. ii, and sulphate of strychnine in doses of 1-20 of a gr., which I proposed to increase rapidly to 1-10 or even 1-8 of a grain.

Three days later it was noted that she felt something better, stating there was a "softening" in the ears, and seven days after the first treatment her friends stated that she occasionally

spoke aloud, though in a low voice, and that her hearing was decidedly improved. At this time the dose of strychnine was increased to gr. 1-10, which produced no appreciable physiological effects. Large doses of strychnine have proven most beneficial in hysterical aphonia, and therefore I feel very confident of benefit in this case.

——o——

No. 584.

CLINICAL NOTES OF CASES OF TUBERCULAR ULCERATION OF THE LARYNX TREATED BY THE KRAUSE METHOD AT THE THROAT AND CHEST CLINIC OF THE EMERGENCY HOSPITAL.

By T. Morris Murray, M. D.,
Washington, D. C.

Statistics of results obtained by this method in Krause's practice.

Report of cases. These include tubercular ulceration occurring on the soft palate, uvula, walls of pharynx and in the larynx.

Conclusions. Whenever lactic acid can be applied directly to the granulating surface of a tubercular ulcer the pain accompanying such ulcer is promptly relieved, and the ulcer soon heals. These results are obtained whether great debility be present or not.

The relief afforded the patient by these applications warrants their use even in cases where there is no hope of prolonging life.

——o——

No. 585. "Indications and Opportunity for Opening the Mastoid Process," by Dr. Edward Obejero, Buenos Ayres, Argentine Republic.
[Abstract not furnished.]

——o——

No. 586.

ON THE TREATMENT OF EMPYEMA WITH DUE REGARD TO NORMAL PULMONARY CONTRACTIBILITY.

By Dan Milliken, M. D.,
Hamilton, Ohio.

I. The author lays down the proposition that though, in the act of expiration, air rushes across from lung to lung and slightly expands one lung even when its pleural cavity has been opened, yet this law is applicable only to persons of fair vigor with deep and slow respiration, and to a lung which has not lost its expansibility by disease or compression.

II. The surgeons ignore the tendency of collapsed lungs to remain collapsed, or, admitting it, they aim, by the destruction of ribs, to bring the chest-wall down to the shrunken lung. This, at best, gives a cure with deformity and diminished lung capacity.

III. The method of treatment by continuous siphonage must be excepted from this criticism. Considered as a matter of physics, it is the ideally perfect method; but it is objectionable because it enforces great quietude upon patients who ought to be moving about.

IV. The author therefore commends a method of his own devising. It much antedates the method of continuous siphonage, and accomplishes its results in the way of re-expansion, by an intermittent treatment.

V. The initial operation, demanding no surgical skill, requires that the aspirator needle, passed close to the upper margin of a rib, shall find pus. To tap the lower level of the pleural sack is not required. Having found pus, the aspiration ceases and the operator thrusts a cataract-knife beside the needle and strictly parallel to it. He makes but a tiny wound and seeks to cut the thick pleura rather than the skin. Then a grooved director is passed into the wound and the knife is withdrawn. A strong probe is forced along the groove, dilating the little wound until a soft small catheter can be passed into the chest, leaving about two inches projecting outward. The catheter having been selected to fit the metal on the aspirator, and the proper attachment having been made, pus is aspirated through the catheter until the patient suffers some slight discomfort, or, perhaps, begins to cough. Then a perfectly flat pincette is applied to the end of the catheter; it is laid upon the chest in some upward direction; and it is secured in position by plaster applied by moisture.

VI. In later treatment the operator washes away the plaster strips, attaches the aspirator, removes the pincette, and then aspirates fluid or gases until the patient is slightly distressed. This may be profitably done twice a day, but good results have been attained by one treatment each day. Warm antiseptic fluids may be thrown into the chest and may be returned and replaced, again and again, until they come into the aspirator almost limpid. In every case the fluid thrown in should measure less than that abstracted. Forming adhesions must not be stretched by the injection of solutions. The patient should be left, at the end of each sitting, with some slight discomfort to indicate that there is a partial vacuum in the chest. All of this manipulation is made possible by the fact that the catheter (after a few days' granulation and absorption), forms a valvular, air-tight joint with the chest-wall. The aspirator is not only able to withdraw pus from the cavity, but it sometimes produces such a vacuum as to suck blood from the granulations on the pleura. As the pus cavity grows less, the catheter may be gradually shortened.

VII. In all of the treatment the catheter should be either firmly held by the pincette forceps or should be firmly attached to the aspirator, to avoid the possibility of its slipping into the chest.

VIII. The author insists that, having this sort of active drainage, one may ignore gravity. Gently pressed by the expanding lung at each aspiration, pus will flow up or down or laterally to find the point of least pressure. It will find it at the point of the catheter.

IX. The author observes that his method involves no formidable surgery, no general anæsthesia in adults, no pain, inconvenience or enforced quietude in the later treatment. It invokes physical principles to expand the lung, and by a systematic movement cure it teaches the lung to resume its full activity in a full-sized pleural cavity. No

imperfect result has been observed in a large group of cases treated by this method, by a number of practitioners, in cases ranging from infancy upward. All have been cured quickly and without deformity.

X. As to priority in calling attention to the need and the method of induced re-expansion of the lung, the author refers to his paper in the report of the Ohio State Medical Society for the year.

——o——

No. 587. Discussion of Injudicious Operative Interference in Nasal Maladies. Opened by J. Solis Cohen, Philadelphia, and Arthur G. Hobbs, Atlanta, Ga., followed by informal discussion.

——o——

No. 588. Discussion of Local and General Treatment of Hay Fever. Opened by D. Bryson Delevan, New York, and W. H. Daly, Pittsburg, followed by informal discussion.

——o——

No. 589. "After Treatment of Nasal Cauterization," by J. W. Gleitzman, New York.

SECTION ON OTOLOGY.

HONORARY PRESIDENTS:

Dr. Adolph Alt, St. Louis, Mo.; Dr. Albert H. Buck, New York; Dr. Gorham Bacon, New York; Dr. Wm. Cheatham, Louisville, Ky.; Dr. Francisco de P. Chacón, City of Mexico; Dr. Sebastian Cuervo y Serrano, Sancti Spiritu, Cuba; Dr. J. C. Connel, Toronto, Canada; Dr. Stephen Dodge, Halifax, Nova Scotia; Dr. J. B. Eaton, Portland, Oregon; Dr. A. A. Foucher, Montreal; Dr. John F. Fulton, St. Paul; Dr. J. Wilford Good, Winnipeg, Manitoba; Dr. Francis B. Loring, Washington. D. C.; Dr. Henry D. Noyes, New York; Dr. Arturo Costa Pruneda, Santiago, Chile Dr. Charles Inslee Pardee, New York; Dr. G. Sterling Ryerson, Toronto, Canada; Dr. D. B. St. John Roosa, New York; Dr. W. H. Sanders, Mobile, Ala.; Dr. Belisario Sosa, Lima, Peru; Dr. G. C. Savage, Nashville, Tenn.; Dr. J. J. B. Vermyne, New Bedford, Mass.

EXECUTIVE PRESIDENT.

Dr. C. M. Hobby, Iowa City, Iowa.

SECRETARIES:

Dr. Max Thorner (English-Speaking), Cincinnati, O.		Dr. H. McHatton (Spanish-Speaking), Macon, Ga.
Dr. Fernando Perez [Juncal 809]	Buenos Aires	Argentine Republic.
Dr. Ernesto Mazize	La Paz	Bolivia.
Dr. Theodoro Peckolt, (Jor)	Rio de Janeiro	U. S. of Brazil.
Dr. J. H. Wishart	Toronto	Canada.
Dr. Cárlos Desvernine [Cuba 52]	Havana	Cuba.
Dr. Carlos Esguerra	Bogota	Republic of Colombia.
Dr. Demetrio Orantes	Guatemala City	Guatemala.
Dr. H. G. McGrew	Honolulu	Hawaii.
Dr. Antonio Peñafiel [Escuela de Medicina]	City of Mexico	Mexico.
Dr. Montenegro	Leon	Nicaragua.
Dr. N. Surh [Ituraingo 265]	Montevideo	Uruguay.
Dr. Focion F. Cordero F	Merida	Venezuela.

SECTION ON OTOLOGY.

No. 1101*a*. "Prevention of Deaf Mutism," by C. M. Hobby, M. D., Executive President of the Section, Iowa City, Iowa.
[Formal Address.]

—o—

No. 1101.

CHRONIC DISEASE OF THE MIDDLE EAR—ITS PROGNOSIS AND SURGICAL TREATMENT.

By Albert H. Tuttle, B. S., M. D.,
Cambridge, Mass.

The early history of operations for the relief of chronic deafness; and also the brilliant success achieved in some cases and to the total failures in others. The different individual results obtained by a resort to surgical measures undertaken for pathological conditions of apparently similar character; also the great difficulty to be overcome in arriving at even an approximate prognosis of such chronic disease. The method introduced for excision of the membrana tympani, and the method for the removal of the larger ossicles for the relief of chronic suppuration. Fixed conditions which give indication for operative treatment. Cases for operation into two classes, the first division is for the relief of deafness generally; the second class embraces measures for overcoming the suppuration altogether. The causes of deafness, either accompanied with suppuration or not, are touched upon; so also deafness as a result of a former attack of suppurating otitis media, and deafness as a result of dry catarrh with hypertrophy of the tissues and in other cases when the disease processes have progressed further and produced an atrophy. Otitis media suppurativa chronica with complications of caries of the ossicles and mastoid disease are also considered as well as the pathological conditions giving rise to tinnitus aurium and to vertigo. The special treatment of the membrana tympani with reference to its reproduction or prevention after operations is mentioned, and also the dangers of the operations and of continued middle ear disease. A choice in the methods of operating and a consideration of the cases that yield the best results after the employment of surgical measures. Cases.

No. 1102.

OTACOUSTIC TREATMENT—ITS HISTORY AND RESULTS UPON THE DEAF AND DEAF MUTES.

By J. A. Maloney, M. D.,
Washington, D. C.

Prior to the year 1886, I devoted a great deal of time to experiment in physics, and principally to its branch, acoustics, the result of which was the development of the instrument, since known as the otophone, which differed in construction from anything used for that purpose prior thereto. It had two chief characteristics:

(1) It did not enter the meatus auditorius externus.

(2) It was a tube closed at one end by a flexible membrane, and thereby confined a column of air.

Its advantages having reached the ears of Drs. S. Wier Mitchell and C. H. Burnett, of Philadelphia, and through them, I was requested by the College of Physicians, of that city, to lay the matter before them, and demonstrate its advantages. This was done on April 6, 1887. (See transactions of the College of Physicians, Third Series, Vol. IX., Philadelphia, 1887.)

Subsequently I was invited to make tests upon deaf mutes at the "Pennsylvania Institution for the Deaf and Dumb," and (a confirmatory test) at the "National Deaf Mute College, Washington, D. C." The results were laid before the American Otological Society, July 19, 1887, New London, Conn. (See transactions American Otological Society, Vol. IV., Part I.

Then it was that the thought of a new field of treatment in chronic deafness occurred to me, I turned to physiological acoustics for light and knowledge, but I found the path had been traversed only partially, until the portals of this domain of science had been opened by Weber, Lucac, Helmholtz, Politzer, Rieman, Henke, and in our own country by Blake, Burnett and Sexton, but the literature upon this subject was sparse, and then not special.

A great deal then was dependent upon tentative deduction. Up to this time, otology depended upon "Politzer Inflation," local application, Siegel's Otoscope, and later Delstanche's improvement upon same. In the use of Politzer Inflation slight benefit was conferred by equalizing the pressure upon each side of the "membrana tympani." In the use of otoscope, success was rare, why? because it produced noise, and the ear in the higher or lower animal shrinks from the same.

Then I directed my attention to a system of aural massage, which had for its chief feature, sound arbitrarily applied, as a therapeutic agent in chronic deafness, and designated by me as "otacoustic treatment" (meaning any sounds to the ear), and has since been known by that title. Much time was required in formulating the method of treatment, classified, as well as individual cases during the first two years, the work being empirical, because I had no rule of procedure based upon experience of others for my guidance. The partial anchylosis or fixation of the ossicular auditus could be relaxed by

this form of passive motion was accepted by some of the most eminent otologists of our day, and I was encouraged by them to persevere. There were two leading otologists, however, who ascribed my success to education of the perceptive tract, and this alone
* * * * * *

—o—

No. 1103.

THE PHONOGRAPH IN THE TREATMENT OF DEAFNESS.

By Johnson Eliot, A. M., M. D.
Washington, D. C.

He reviews the theories of the phonograph, of massage, of hearing and the practical utility of the phonograph as a means of applying massage.

He recites the histories of several cases and concludes that, as far as his experience shows, the phonograph has proven a failure in the treatment of deafness.

—o—

No. 1104.

SOME INTERESTING CASES OF MASTOID DISEASE.

By S. McCuen Smith, M. D.,
Philadelphia, Pa.

It is now generally conceded that intra-cranial complications arising from aural disease are usually the result of the chronic form ; and yet we should not overlook the fact that these serious complications sometimes take their origin from an acute suppurative otitis media. The cases cited in the paper forcibly illustrate this view. As a rule, however, we need not fear cerebral complications from the acute form of the disease, unless they should arise from the transmission of infectious matter through the blood-vessels. As this probably explains how intra-cranial sepsis may occur, the subject demands our most serious consideration and investigation.

The danger from an acute suppurative otitis media by direct communication is slight when the lining tympanus mucous membrane is intact; but if by neglect this inflammation should become chronic, the erosion and consequent caries of the tympanic walls may give rise to a cerebral or mastoid abscess, through direct communication.

The other cases are unique, because arising from the acute suppurative form of tympanic disease.

Our object in calling attention to these cases is to bring prominently before the profession the assertion that septic cerebral inflammation and abscess arising from acute suppurative disease of the tympanic cavity occurs with far greater frequency than was heretofore suspected. All of which facts strongly emphasize the necessity for the early recognition and treatment of all primary aural diseases, no matter how insignificant they may appear.

No. 1105.

OPENING THE MASTOID CELLS IN ACUTE INFLAMMATORY MIDDLE EAR DISEASES.

By L. D. Brose, M. D., Ph. D.,
Evansville, Ind.

Although the indications as laid down in the text-books for opening the mastoid cells in acute middle ear diseases seem well defined, it has nevertheless been my experience to have met with cases where, notwithstanding the symptoms present indicated mastotomy, and because of failure to get the patient's consent, or because the operation through other causes was delayed, the patients eventually recovered solely through local treatment.

Otorrhoea accompanied by pain, oedema over mastoid, and fever, resisting antiphlogistic treatment for eight days (Schwartze) is an indication for mastotomy, especially if the posterior wall of external hearing canal is swollen and bulging and deep-seated furuncolosis is excluded. In acute suppurative middle ear inflammation, without mastoid involvement or pus retention resisting usual treatment two to three weeks, mastotomy is indicated (Dr. Heiman, of Warsaw). Also as a prophylactic measure when the ear drainage is insufficient, because of swelling of the middle ear lining membrane, or size or location of drum perforation or stenosis of auditory canal. Cerebral abscess, suppurative phlebitis with sinus thombosis, extra-dural suppuration and meningitis, even with the presence of pyaemic or septic symptoms, indicate mastotomy. Otherwise incurable and recurrent mastoid neuralgias indicate opening the mastoid.

—o—

No. 1106.

ARTICLE ADENOIDS, A CONTRIBUTIVE FACTOR IN AURAL AFFECTIONS.

By M. D. Lederman, M. D.,
New York.

The recurrence of the suppurative process in middle ear disease observed in children is so evidently due to the presence of these growths, that their thorough removal should be our first effort. If the patient is suffering from acute symptoms, we must delay such surgical interference until same have subsided. It matters not if this obstructing mass produces the inflammatory state by direct continuity or by inhibiting the action of the levator palati muscles, thus interfering with the proper aeration of the eustachian tube and middle ear, or whether the circulatory apparatus is influenced by the pressure exerted upon the pharyngeal veins. The knowledge that these growths are an exciting factor is sufficient evidence to urge their prompt removal. The usual method of treating the incessant discharge by irrigation and insufflations of boracic acid, thus allowing the possible absorption of the tympanic membrane and ossicles, is, to say the least, a most faulty practice. If we would introduce our finger into the pharyngeal vault of young

patients, suffering from these frequent purulent attacks, in the large majority of cases it would not be necessary to seek further for their origin. When a child suffering from ear disease, be it of the catarrhal or purulent variety, is the subject of adenoids, we may safely offer a favorable prognosis, providing the removal of the hypertrophied tissue can be thoroughly performed. Unless all the lymphatic tissue is ablated (and this can be readily ascertained by the introduction of the finger into the pharyngeal space), the desired results are not forthcoming. By ridding the patient of this overgrown tonsil, we not only benefit the aural complication, but materially influence the general system as well. The symptoms of mouth-breathing, restlessness at night, dull expression of face, nocturnal enuresis, are all relieved by abstracting the exciting lesion. We must not anticipate an immediate cessation of the offensive aural discharge, as it takes a few days and sometimes weeks for its final disappearance. However, some cases respond so quickly to the treatment that we are at times agreeably surprised. The instrument which has given me most satisfaction in their removal is the modified heart-shaped Gottstein curette, together with the Lowenberg's post-nasal forceps improved by Dr. Gleitsmann.

—o—

No. 1107. "Compressed Air, Vapors and Sprays in the Treatment of the Middle Ear, and Eustachian Tubes," by H. V. Wurdeman, M. D., Milwaukee, Wis.

No. 1108. "The Present Condition of Otology in Europe," by Lawrence Turnbull, M. D., Philadelphia, Pa.

No. 1109. "Pathological Conditions following Piercing of the Lobules of the Ear," by Max Thorner, M. D., Secretary of the Section, Cincinnati, O.
[Abstract not furnished.]

No. 1110. "Craniometric Measurement of 500 Skulls in Relation to Aural Topographic Anatomy," by B. Alex. Randall, M. D., Philadelphia, Pa.

No. 1111. "Description of Focussing Ear Trumpet," by Edmund D. Spear, M. D., Boston, Mass.
[Abstract in hands of Literary Bureau.]

No. 1112. "The Modern Non-Surgical Treatment of Chronic Purulent Inflammation of the Middle Ear, with Indications for Surgical Interference," by R. C. Heflebower, M. D., Cincinnati, Ohio.
[Abstract in hands of Literary Bureau.]

No. 1113. "The Treatment of Suppurative Processes of the Attic," by J. F. Fulton, M. D., St. Paul, Minn.

No. 1114. "The Non-Surgical Treatment of Attic-Neurosis," by W. CHEATHAM, M. D. Louisville, Ky.

No. 1115. "Preventable Deafness," by CHAS. S. TURNBULL, M. D., Philadelphia, Pa.

No. 1116. "Contribution to the Study of Aural Syphilis," by MAX TOEPLITZ, M. D., New York City, N. Y.

No. 1117. "On Localization of Sound," by C. BARCK, M. D., St. Louis, Mo.

No. 1118. "Indications for the Mastoid Operations and the Preferable Methods," by S. S. BISHOP, M. D., Chicago, Ill.

No. 1119. "Description of a Middle Ear Powder Blower," by R. D. BARRET, M. D., St. Louis, Mo.

[Abstract not furnished for 1113 to 1119 inclusive.]

SECTION ON DERMATOLOGY AND SYPHILOGRAPHY.

HONORARY PRESIDENTS:

Dr. Silva Aranjo, Rio de Janeiro, U. S. of Brazil; Dr. L. Duncan Bulkley, New York; Dr. Juan C. Castillo, Lima, Peru; Dr. Louis A. Duhring, Philadelphia; Dr. Le Grand N. Denslow, St. Paul; Dr. Maximiliano Golan, City of Mexico, Mexico; Dr. Jas. Nevins Hyde, Chicago; Dr. Prince A. Morrow, New York; Dr. R. B. Morison, Baltimore; Dr. D. W. Montgomery, San Francisco; Dr. A. Ravogli, Cincinnati; Dr. A. R. Robinson, New York; Dr. Antonio Rubio, Pinar del Rio, Cuba; Dr. M. Lucas Sierra, Santiago, Chile; Dr. R. W. Taylor, New York; Dr. A. Van Harlinger, Philadelphia; Dr. J. C. White, Boston, Mass.; Dr. Edw. Wigglesworth, Boston, Mass.

EXECUTIVE PRESIDENT:

Dr. A. H. Ohmann-Dumesnil, No. 5 South Broadway, St. Louis, Mo.

SECRETARIES:

Dr. Wm. S. Gottheil (English-Speaking), 25 W. 53rd St., New York, N. Y.		Dr. John Forrest (Spanish-Speaking), Charleston, S. C.
Dr. Cárlos Lloveras [Piedad 944]	Buenos Aires	Argentine Republic.
Dr. Viscarra Heredia	La Paz	Bolivia.
Dr. W. S. Barnes [Leper Hospital]	Mahaica	British Guiana.
Dr. Joãn P. Gabiza	Rio de Janeiro	U. S. of Brazil.
Dr. J. E. Graham	Toronto	Canada.
Dr. Enrique Robelin, [Jesus Maria 91]	Havana	Cuba.
Dr. Daniel E. Coronado [Calle 13, núm. 120]	Bogota	Republic of Colombia.
Dr. Daniel Nuñez	San Jose	Costa Rica.
Dr. Angel Rivera Paz	Guatemala City	Guatemala.
Dr. Henry G. McGrew,	Honolulu	Hawaii.
Dr. Strachan	Kingston	Jamaica, W. I.
Dr. P. Numa Rat	Antigua	Leeward Islands, W. I.
Dr. Francisco Bernaldez [Escuela de Medicina]	City of Mexico	Mexico.
Dr. Bevan N. Rake	Port of Spain	Trinidad, W. I.
Dr. Manuel Bonasso [Arapey Esquina Colonia]	Montevideo	Uruguay.
Dr. Adolfo Briceño Picón	Merida	Venezuela.

SECTION ON DERMATOLOGY AND SYPHILOGRAPHY.

No. 601*a*. "American Dermatology," by A. H. Ohmann-Dumesnil, M. D., Executive President of the Section, St. Louis, Mo.
[Formal Address.]

—o—

No. 601.

LUPUS, ITS EXTIRPATION AND REPORTS OF CASES.

By B. Merril Ricketts, M. D.,
Cincinnati, Ohio.

The ravages that lupus in any form produces, and its persistent character, have made not only the sufferer, but the surgeon desperate in his endeavor to give relief. Whether or not the future treatment and consequent good results are to be obtained by following up Koch's principles, is yet a question. When a lesion is cured that has been diagnosticated lupus, the preponderance of evidence is that it was a mistaken diagnosis, that it was not lupus. However this may be, we must necessarily depend to a great degree upon the clinical history and appearance of the lesion. I was convinced early in my practice that treatment of any kind availed but little. This naturally led me to resort to more desperate means than was usually employed by those with whom I was associated. All treatments convinced me that the disease, when possible, should be excised. Unfortunately, the disease occurs mostly about the face, eye-lids, nose, ears and lips, places where extirpation is made with the greatest difficulty, and where the greatest deformity is the result. I believe that the extirpation of lupus is about as certain, when done in its earliest stages, as some of the forms of epithelioma and sarcoma. The question arises, When does it become constitutional and to what degree may it become constitutional when extirpation would be useless? It is also important to determine that degree in any of the malignant growths.

If lupus is found upon the finger we would not hesitate to amputate it; if lupus were to appear upon the hand, we would naturally resort to all means of treatment to save the hand. Would it not be better to remove the hand early in the progress of the disease? We know that the removal of a finger affected with lupus has cut short the disease, and that the patient has lived for years without any recurrence. Now, if this be so, why is it not rational surgery to extirpate any diseased lesion that may appear upon any part of the body? The means that we now have at our command in restoring parts with both single and double pedunculated grafts, as suggested by Thiersch, should encourage both the operator and the patient in resorting to early surgical interference, no difference upon

what part of the face the disease may be found. The dread of suffering, taking an anaesthetic, and being deformed, I might say, is the occasion of so much procrastination, not only in the treatment of lupus, but all other diseases.

I have treated the two forms of lupus in the same manner, having seen sixty-five cases.

(1) Lupus vulgaris 42
(2) Lupus erythematosus 23

—o—

No. 602.

GLYCOSURIA AS AN ADDITIONAL SYMPTOM INDICATING THE NEUROTIC ORIGIN OF DERMATITIS HERPETIFORMIS.

By James McF. Winfield, M. D.,
Attending Dermatologist to the Kings County Hospital, Brooklyn, N. Y.

Many cases of dermatitis herpetiformis have been reported by Elliot, Brocq, and other dermatologists, pointing to severe nervous shock as the essential etiological factor in the production of this much discussed cutaneous disease; but no mention is made in their writings of any change in the urinary secretion.

The author gives a number of clinical cases occurring both in his practice and that of Doctor Sherwell, in which glycosuria was present to a greater or less extent, and in all of them the recurrent attacks followed some unusual mental exertion or severe nervous shock, showing, therefore, an intimate relationship between the presence of the eruption and the reception of the nervous shock.

It is not the object of the paper to consider in extenso the other clinical facts. Reference is made to the investigations of Claude Bernard in regard to the now recognized existence of a sugar centre in the medulla oblongata, by direct puncture of this centre, but also in some cases of general brain shock and sudden lesions in distant parts of the brain. Suggestion is made to the possible influence of the higher nervous centres radiating the shock to the medulla oblongata.

—o—

No. 603.

A STATISTICAL RECORD OF 5000 CASES OF SMALL-POX.

By William M. Welch, M. D.,
Physician in Charge of the Municipal Hospital for Contagious and Infectious Diseases, Philadelphia, Pa.

It is my purpose to present for consideration a statistical tabulation of 5000 cases of small-pox, all having come under my personal observation in hospital service. These cases will be so divided and classified as to show the influence of sex, color and age, over the disease. More especially will be shown the power of vaccination as a protective agent.

In order to facilitate and simplify the presentation of these important facts printed, tables will be hung up for inspection, showing the number of cases, the deaths, and the death rates of each sex and of each color, white and black. Both the vaccinated and unvaccinated cases will be divided according to the age of the patients, showing the death rates of those under one year, one to five years, five to ten, ten to fifteen, and fifteen years and upwards. A classification will also be made of the cases, according to the nationality of the patients, showing the death rates of the unvaccinated and the vaccinated under each of these divisions. The vaccinated cases will be divided in each table, according to the character of the vaccine cicatrices, three divisions being made, and characterized by the terms, *good*, *fair*, and *poor*. All those who alleged to have been vaccinated, but showed no visible mark, will be classified accordingly. The vaccinated cases will still further be classified according to the number, as well as the character of the vaccine cicatrices in each case.

The paper will show what proportion of these 5000 cases had been, or alleged to have been, revaccinated.

The question of the frequency and severity of recurrent or second attacks of small-pox, will also be considered.

———o———

No. 604.

TREATMENT OF DISEASES OF THE NAILS.

By John V. Shoemaker, A.M., M.D.,
Philadelphia, Pa.

In all the systematic diseases to which allusion has been made loss or change of nail structure is but one of many signs of disordered nutrition. In serious maladies, which tend to a fatal issue, the local treatment of the nails is scarcely likely to engage any one's attention. But in many of the conditions named, especially when the patient is a female, it is desirable to take measures for improving the appearance of the nails. The therapy will obviously be chiefly directed to the constitutional disorder. Of constitutional remedies I will only mention sulphur as one which is especially useful in improving the nutrition of the nails. Sulphur is a normal ingredient of nail-tissue, in which it exists in a comparatively large proportion. It is consequently an excellent remedy in cases where the nutrition of the nail is perverted.

HYPERTROPHY OF THE NAIL.

In addition to sulphur, of which I have already spoken, arsenic and iron are also of value in debilitated subjects. They improve the nutrition of the nails and assist the action of the local measures. When the nail is simply thickened or lengthened the redundant portion can be removed by means of the knife, scissors, cutting-pliers or saw. If the hypertrophy is but moderate in degree, paring the free end of the nail and pushing back the free margin of skin at the side and base of the nail will often arrest the faulty growth. Early in the case a cure can generally be effected by carefully inserting a small

piece of absorbent cotton between the nail and the adjacent fold of skin. In this manner the horny plate is gradually raised when the soft parts can be readily removed without producing much pain.

ATROPHY.

The treatment of atrophy of the nails depends upon its cause. As the affection occurs in connection with many constitutional diseases constitutional treatment is requisite in most cases. If atrophy of the nails takes place in syphilis anti-syphilitic remedies should be given according to the stage of the disease and the condition of the patient, not forgetting that iron is often needed in syphilis in order to combat the specific anaemia. If the atrophy develops consecutive to an attack of fever, reconstituent remedies are demanded and as the general health improves the nutrition of the nails is favorably influenced. If the atrophy has been caused by tuberculosis we must employ those remedies which may modify the progress of the general malady. When we are able to trace a connection between the malnutrition of the nails and a serious disease of the nervous system, such as ataxia, we must make use of such means and remedies as are most likely to favorably modify the course of the general malady.

The local applications which we may employ in case of unusual atrophy consist principally of oils or fats and protectives. The office of the latter is, of course, to guard a painful nail-bed from direct contact with irritant substances. The latter is a point of considerable importance when the occupation of the patient exposes the finger ends to injury. A layer of wax or gum over the affected nails will add to the comfort of the patient. Among medicinal agents which exert a favorable influence in atrophy of the nail are the oleates of lead and zinc, made into an ointment with lanolin. These oleates are of especial service in painful conditions.

The growth of a healthy nail may also be stimulated by the use of mercurial ointments or plasters, which are of particular value if the disease of the nail depends upon syphilis.

——o——

No. 605. "Primary Dystrophies of the Skin," by E. Preble, M. D., Cleveland, Ohio.

——o——

No. 607. Paper, by Geo. Holsten, M. D., Brooklyn, N. Y.
[Neither Title nor Abstract furnished.]

——o——

No. 608. "Rhinophyma," by Wm. Gottheil, M. D., New York City, N. Y.
[Abstract not furnished.]

——o——

No. 609.

RHINOPHYMA.—A NEW PATHOLOGICAL CONDITION FOUND.

By A. H. Ohmann-Dumesnil, M. D.,
St. Louis, Mo.

In this paper a case of the trouble is described wherein the tumor weighed about two pounds. An operation procured complete relief of the deformity which had existed

some years, the subject having been a hard drinker for a number of years. The operation was a purely cosmetic one which terminated in a very favorable result.

Upon making microscopical sections of the tumor it was found to consist mainly of fibrous tissue as is generally the case in growths of this nature. Large vacuoles were also found, but the interesting condition is the finding of isolated fat cells disseminated in the fibrous tissue. Their origin was no doubt due to a shrinking process by which portions of the columnae adiposae were cut off by the formation of the fibrous tissue and, in this manner the fat cells discovered were disseminated in a totally different tissue.

—o—

No. 610.

FRAMBOESIA OR YAWS.

By George Edmund Pierez, M.D., and C.M., Edin. Univ.,

Honorable Secretary "Leeward Island's Branch of the British Medical Association;" Government Medical Officer, St. Philip's, Antiqua, British West Indies.

Introduction :—The disease little known in Europe. Widely diffused throughout the tropics, under various names. Statistics of cases in some of the British West Indies.

Definition :—A specific contagious disease, endemic in many tropical countries, characterized by eruptions of solid tubercles on certain parts of the body, the tubercles covered by a brownish-yellow crust, and exhibiting a raspberry-like appearance, on removal of the crust. The disease runs in more or less chronic course.

Synonyms :—"Framboesia," "Pian," "Yaws," "toboe," parangi," etc.

Geographical Distribution :—West Africa; Senegambia to Angola; interior of Africa; Westerly Soudan; Nile Valley; Timbuctoo; Northern and North-eastern coasts of Africa; Madagascar; Mozambique; Java; Sumatra; Ceylon; Fiji Isles; Brazil; British, Spanish and French West Indies; Guiana; Central America.

History :—Various writers have described the disease from 1648 to present time. (Wm. Pison, Bontius, Dazille, Schilling, Alibert, Gavin Milroy, etc.)

Symptoms :—(*A*) Stage of incubation, two to ten weeks. (*B*) Stage of invasion, very little to be noticed in mild cases. In severe ones the eruption may be ushered in by fever and joint pains. (*C*) Results, recovery in mild cases. Severer cases end (i) either fatally from dropsy, dysentery or some other intercurrent disease, or (ii) in permanent deformities from destruction of muscle and tendon (through deep and extensive ulcerations) and contraction of joints.

Varieties of eruptions :—(*A*) "Pian dartre," a furfuraceous condition of the skin. (*B*) "Pian gratelle," the tubercles are small, have no distinct crust, and have a watery appearance. (*C*) "Crab yaws," a name applied to the disease, when it attacks the soles of the feet. (*D*) "Ringworm yaws," so called from the appearance presented by the tubercles. (*E*) "Tubercles," the characteristic eruption, they are covered by brownish-yellow crusts. *A, B, C, D*, are not true varieties, but only steps in the evolution of the true tubercles.

Duration :—Two weeks to four or six months in mild cases, one or more years in severe cases.

Distribution of Eruption :—Upper and lower extremities, but chiefly the latter, next the face, then the genitals and perineum.

Age :—Most common between one and five years; next, between five and ten years; least seen in very young children and old people.

Sex :—Both equally affected.

Diagnosis :—(*A*) Between "Psoriasis" and "Pian dartre." (*B*) Between "Eczema squamosum" and "Pian dartre." (*C*) Between "yaws" and syphilis.

Prognosis :—Not dangerous in healthy, well-fed and cleanly children or adults. May end fatally in those of debilitated constitutions, or may cause permanent deformities.

Etiology :—(*A*) Predisposing causes, (i) race, most common in black races, but due to accidental circumstances. (ii) Bad hygienic conditions and unwholesome food. (*B*) True cause, a "contagium vivum," the "micrococcus Framboesial," so named and described by the author in 1890, in a graduation thesis submitted to the medical faculty of Edinburgh University.

Pathology :—A yaws "tubercle" consists of an aggregation of overgrown papillae, the overgrowth being due to the irritation caused by the "micrococcus Framboesial.

Bacteriology :—From old crusts exposed to the air, the author isolated a "bacillus" which has been shown to be the ordinary "B. subtilis." Not found in crusts protected from external contamination. The "micrococcus Framboesial" was isolated from the blood of a yaws patient.

Treatment :—Wholesome food and cleanliness, quiet sufficient in mild cases. More severe cases need external application of some germicide (tinct. of iodine, etc.). Bad cases need, beside outward applications, internal remedies (Fowler's Solution alone or with iron, etc.).

Classification :—Not a "cachexia," but one of the "exanthemata."

Fowl yaws :—Very similar to the disease in the human subject, in the microscopic characters of the "tubercle," distribution of the eruption, and age at which infection most frequent. A micrococcus, isolated from the blood here also, is apparently identical with that of human yaws.

Appendix :—Consists of a list of 152 cases of yaws, seen and treated by the author, in Antigua up to the end of February 1893.

——o——

No. 611.

THE QUESTION OF THE COMMUNICABILITY OF LEPROSY.

By Beaven Rake, M. D., London,
Medical Superintendent of the Trinidad Leper Asylum; late Senior Member of the Indian Leprosy Commission
Port of Spain, Trinidad.

Modern evidence does not bear out the ancient opinion as to the communicability of leprosy.

Subject to be considered under six headings:

(1) *Bacteriological evidence.*

Discovery of leprosy bacillus by Hansen, confirmed by Neisser. Leprosy not necessarily contagious because associated with a bacillus.

Cultivation experiments of Hansen, Neisser, Rake in the Trinidad Asylum, Bordoni, Uffreduzzi, Gianturco, Campana, Buckmaster, Thomson and Rake at Almosa and Simla. No undoubted culture of leprosy bacilli yet obtained, though some of the bacilli cultivated have presented points of resemblance to those in the tissues. Inoculation of cultures in animals have always failed. Of Koch's four postulates, only the first has been proved in the case of leprosy.

(2) *Inoculations of animals.*

1. With cultures.
2. With tubercles or other leprous products.

Culture inoculations always negative.

Results with tubercles or other leprous products doubtful. Neisse described a local nodule. Damsch got local infiltration of iris, ciliary body and Descemet's membrane. Vossius got similar results. Adverse criticism of Wesener, Leloir and Campana. Similar results with leprous material hardened for years in alcohol. Experiments of Campana in fowls, and Kobner and Hansen in monkeys. Failure of Thin, Kannis, Arming, Bordinis, Uffreduzzi, Leloir and Rake to inoculate animals. Negative experiments of Hillaiset and Gaucher and Vidal in pigs.

Melcher and Ortmann obtained dissemination of nodules in viscera of rabbits after inoculation of anteria chamber with leprous tubercle. Avining and Ruffer believe these nodules to be leprous. Wesener and Hüppe think they are tuberculous.

Recent experiments of Rake in Trinidad Asylum. Guinea pigs developed visceral nodules after inoculation with fragments of phthisical lung from lepers. Bearing of these experiments on those of Melcher and Ortmann. Besiner's view that leprosy is an essentially human disease.

(3) *Inoculations in the human subject.*

(1) With cultures.
(2) With tubercles or other products.

Injections of anesthetic lepers with cultures in the Trinidad Asylum. Two out of twelve developed leprous tubercles afterwards, but this may have been a coincidence. Rarity of appearance of cutaneous tubercles in a pure anesthetic leper.

Avining's case of inoculation of a criminal with leprous tubercle. Fallacies subsequently discovered.

Failure of Profeta, Danielssen, Holst and Jitsch to inoculate healthy individuals, and of Hansen to inoculate anesthetic lepers. Thirty-three anesthetic lepers inoculated with pieces of leprous tubercle in the Trinidad Asylum. Results negative, except in one who had also been injected with culture.

Sum of evidence under this head practically negative.

(4) *Vaccination.*

Cases reported by Gairdner, Daubler and Chew. Obvious fallacies. Pringle's experience of twenty years' vaccination in British Gashune and the plains between Ganges and Jumna. Opposed to statements of anti-vaccinationists.

Microscopic examination of vaccine lymph from leper. Avining and Simpson reported bacilli. Rake in Trinidad found none. Animals vaccinated with leprous lymph did not develop leprosy. Buckmaster, Thomson and Rake in Almont made ninety-three examinations of vaccine lymph from lepers. Doubtful rods in two cases. Practically no damage from vaccination.

(5) *Practical experience.*

Fallacy of concomitant variations in all cases of alleged contagion occurring in countries where leprosy is epidemic. Typical case of the kind cited, which recently came under the writer's notice. Experience of the leprosy commission in India. Only one case which did not break down on cross-examination. Discrepancies even in this case, that of an asylum attendant at Calicut. Hawtrey Benson's public case, the only one apparently free from objection. Was the diagnosis correct?

(6) *Alleged increase of leprosy.*

Apparently great increase in Hawaii. Recent appearance and increase in Memel.

Present state of the disease in Trinidad, India, Norway, Iceland, and Northwestern States of North America. In Trinidad proportion of lepers to population about the same. In other countries absolute decrease.

——o——

No. 612.

SOME OF THE RARER TROPHIC LESIONS IN LEPROSY.

By Beaven Rake, M.D., London,

Medical Superintendent of the Trinidad Leper Asylum; Late Senior Member of the Indian Leprosy Commission, Port of Spain, Trinidad.

Peripheral nerves always infiltrated more or less with new growth associated with leprosy bacilli if patient lives long enough. Classification of leprosy into tuberculated, anesthetic and mixed purely arbitrary. Recent dissections by Gerlach show that in anesthetic leprosy primary growth takes place in skin around nerve endings.

Existence of trophic nerves not satisfactorily proved. Term "trophic," used as a convenient one for working purposes.

More common trophic lesions such as anesthesia, ulceration, gangrene and necrosis are well known. Proposed to discuss some of the rarer conditions.

(1) *Raymond's phenomena.*

Raymond's original definition. Local asphyxia and symmetrical gangrene. Case of local asphyxia occurring in Trinidad Leper Asylum quoted. Associated with anesthetic leprosy. Post-mortem appearances. Bacilli in superior cervical sympathetic ganglion.

(2) *Charcot's Joint Disease.*

Two cases in lepers in Trinidad Asylum quoted. Points mentioned by Charcot as characteristic of tabetic arthrites. Hutchinson's criticism that changes are due to free movement of an anesthetic rheumatically inflamed joint is peculiarly applicable to leprosy. Possibly the two patients had tabes as well as leprosy. Three possible theories.

(3) *Symmetrical Bed-sores.*

Two cases in lepers quoted. Close resemblance to Charcot's acute decubitus, Position of sores in centre of buttocks rendered it unlikely they were due to pressure.

(4) *Perforating Ulcers.*

Far commoner in lepers than in other subjects. Very similar to those in locomotor ataxia and other diseases, but sometimes there is intense pain. Methods of treatment: Nerve stretching sometimes successful for a time. Best results from splitting open foot forward between toes and stuffing with lint. Twenty-four patients thus operated on. Illustrated case quoted.

(5) *A Condition Resembling Ainhum.*

Crombie's description of ainhum. Only occurs in negroes and Hindoos. Has been seen in fourth toe, great toe and a finger. Histology studied by Eyles. His theory, though applicable to little toe, not satisfactory when disease occurs elsewhere.

Notes of nine cases resembling ainhum, occurring at Trinidad Leper Asylum. Constriction occurred in varions fingers and toes. Possible explanation offered. Difficulty of obtaining post-mortem evidence in cases of ainhum, as the disease is not a fatal one.

(6) *Ophthalmic Lesions.*

Ophthalmia most frequent. Ulcer of cornea not uncommon. Sometimes followed by onyx, hypopym, or other varieties of abscess, by perforation, or iritis with synechia. Occasionally panophthalmistic and destruction of eye occurs.

Same difficulty here as in the old experiments on changes in nutrition of the eye after division of trigemiums in rabbit. Snellen's results.

Condition in leprosy closely resembles effect of section of trigeminus. Sometimes absolute anaesthesia of cornea, so that cataract can be extracted without artificial anesthetic.

Question thus becomes the same as that discussed with reference to Charcot's joint disease.

Changes in tuberculated leprosy due to growth of tubercles in conjunctiva or cornea, and do not concern present inquiry.

(7) *Zona.*

Observed seven times in six years at Trinidad Asylum. Radcliffe Crocker describes cases in groups and suggests atmospheric influence. Patients in adjoining beds attacked in Trinidad Asylum. Groups of cases also occur outside the asylum in non-lepers occasionally.

No. 613. "Beriberi en el Cauca," by Dr. Evaristo Garcia, Cali, Cauca, Colombia.

—o—

No. 614. "Lepra en el Cauca," by Drs. Evaristo Garcia, and Adolfo Tenoris, Cali, Cauca, Colombia.

—o—

Intestinal neuritis, the commonest lesion in zona, hence it is not surprising that zona occurs in lepers. Charcot specially mentions zona in locomotor ataxia.

These notes help to show that many of the most interesting lesions in leprosy have their prototypes in diseases already described in Europe or elsewhere. Great complexity of question of trophic lesions.

—o—

No. 615. "El Caratea," Drs. Juan N. Wallis O., and Alfredo Garces y Domingo, Arboleda, Colombia.

—o—

No. 616.

A CASE OF RECURRENT PRURITUS.

By A. H. Ohmann-Dumesnil, M. D.,
St. Louis, Mo.

A woman who is now twenty-nine years old had a child twelve years ago. Her cervix was lacerated but she did not suffer in any particular manner from this. March 6, 1889, she took ℥iij of laudanum and did not recover from the effects for several days. The woman is well nourished, has a good physique and is inclined to be "nervous." Her menstruation has always been normal and regular. The pecular pruritus first showed itself April 16, 1889, when her menstrual period came on. Ever since that time it occurs a day before, during, or a day after menstruation. It is universal and very distressing, nothing, in the way of scratching, brushing or the mechanical means, allaying it. The attacks last from twelve to twenty-four hours.

Latterly, however, the attacks are not so severe, nor do they last for such a long period of time.

A peculiarity in connection with such attack is that the face becomes of an intense red color, and the pupil contracts to one-third its normal diameter. This would seem to point to a central origin limited to the base of the brain.

—o—

No. 617.

THE ETIOLOGY OF ECZEMA.

By A. Ravoglia M. D.,
Cincinnati, Ohio.

The experiment of Hebra, consisting in painting the skin with croton oil, can no more pass as an example of eczema. The action of the croton oil on the skin is an inflammatory one, and the result is a dermatitis. Dermatitis is not eczema, but dermatitis often is the starting point of eczema. Both affections recognize as their ground an inflamma-

tory process, but they must be separated by their clinical and pathological characters. Chronic course not tendency to relapse are the characteristics of eczematous affections.

Observations show that the presence of pus or purulent discharge on an irritated skin are liable to produce eczema. Catarrhal rinitis, chronic otorrhea often are the starting point of eczema, and yet in cases of seborrhea eczema is produced when purulent matter is formed underneath the sebaceous crusts. Nurses and surgeons having to handle purulent secretions, when the epidermis was not entirely wholesome, have got eczema of the hands and of the fingers. Impetigo has often been communicated from the mother to the child and vice versa, and often from one point of the skin eczema has been communicated to other parts of the body only by contact of the surface of the skin, or by the nails in the act of scratching.

Conclusion is that pus is the most effective cause of eczema. To prove this assertion experiments were done.

A rabbit was prepared by shaving its ears, and after having them washed and cleansed with a solution of carbolic acid, the ears were rubbed with a pure culture of staphylococcus pyogenes albus. No result however was obtained. The ears were after a while painted with croton oil until a strong dermatitis was produced. The left ear was then inoculated with the pure culture of staphylococcus pyogenes albus; nothing was done to the other ear, leaving it for comparison. In a few days the symptoms of dermatitis subsided, but one week after, the left ear which had been inoculated showed pustules, and vesicles, which soon were covered with yellow thick coats resembling eczema, while the other ear which had not been inoculated, but only irritated with croton oil, had returned to its normal condition. The eczema produced on the inoculated ear lasted for over four weeks before the skin could return to the normal condition, and showed a remarkable alopecia.

This was a proof that staphylococcus pyogenes albus is a cause of eczema.

It will not affect an epidermis when completely healthy, but it needs to find the cells of the horny layer disconnected so as to find its entrance underneath them.

This explains the easy relapse of eczema when some of the cocci remain under the epidermic cells, after some days they develop again and new plagues of eczema show up again.

The quality of the skin of the different individuals and their general condition has something to do with the production of eczema, but never has it been inherited from the offspring as eczema. All the cases referred to as nervous eczema were more dermatitis than true eczema.

The cocci produce taxalbumen which has a local irritant action upon the epidermis causing at times an acidization of eczema. Stophilococci are found abundantly on the epidermis cells scraping an eczematous plague. Stophylococcus aureus and citreus seems to produce more deep inflammations in the skin in form of pustules, furunceles and carbuncles.

The conclusions are that :

(1) Eczema is a local affection of the skin.
(2) Of chronic inflammatory nature affecting the epidermis.
(3) Contagious under favorable circumstances.
(4) Produced by micro-organisms contained in the pus.
(5) Aroused from a previous irritative or inflammatory condition of the skin.

No. 618. Is leprosy contagious or inoculable? If so, what is the manner in which such contagion or inoculation is effected?

No. 619. What are the relations of psorospermosis to malignant processes (epithelioma, Paget's disease of the nipple, etc.)?

No. 620. Is impetigo a disease *sui generis?* If so, what is the explanation of the different varieties observed?

No. 621. Are the lesions of tertiary syphilis dependent on the process, or are they secondarily caused by the result of a changed condition of tissues? If so, what is the explanation?

No. 622. The diagnosis of skin diseases in the colored races.

SECTION ON HYGIENE, CLIMATOLOGY AND DEMOGRAPHY.

HONORARY PRESIDENTS:

Dr. A. Nelson Bell, Brooklyn, N. Y.; Dr. Federico Puca Borne, Santiago, Chile; Dr. Emelio R. Coni, Buenos Aires, Argentine Republic; Dr. J. J. Cornilliac, St. Pierre, Martinique, F. W. I.; Dr. Roland G. Curtin, Philadelphia, Pa.; Dr. Charles Denison, Denver, Col.; Dr. Martin Dulante, Lima, Peru; Dr. Samuel H. Durgin, Boston, Mass.; Dr. Justin E. Emerson, Detroit, Mich.; Dr. Cárlos Finlay, Havana, Cuba; Dr. Felix Formento, New Orleans, La.; Dr. Aranjo Goes, Rio de Janeiro, U. S. of Brazil; Dr. Henry R. Hopkins, Buffalo, N. Y.; Dr. E. P. Lachapelle, Montreal, Canada; Dr. Eduardo Liceaga, City of Mexico, Mexico; Dr. Frederick Montizambert, Quebec, Canada; Dr. John S. McGrew, Honolulu, Hawaii; Dr. John H. Rauch, Chicago, Ill.; Dr. E. L. Shurley, Detroit, Mich.; Dr. Stephen Smith, New York City; Deputy Surgeon General George M. Sternberg, U. S. Army; Dr. John Sundberg, San Francisco, California; Dr. Henry P. Walcott, Boston, Mass.; Dr. Irving A. Watson, Concord, N. H.

EXECUTIVE PRESIDENT:

Medical Director Albert L. Gihon, M. D., United States Navy.

SECRETARIES:

Dr. Peter H. Bryce (English-Speaking), Toronto, Canada.	Dr. Pedro José Salicrup (Spanish-Speaking), 129 E. 17th St., New York City.

Dr. Pedro N. Arata [25 de Mayo 273]	Buenos Aires	Argentine Republic.
Dr. Luis Pierola	La Paz	Bolivia.
Dr. Pacifico Pereira	Bahia	U. S. of Brazil.
Dr. E. J. Rowland	New Amsterdam	British Guiana.
Dr. Gabriel Durango Borda	Bogota	Republic of Colombia.
Dr. Juan J. Flores	Heredia	Costa Rica.
Dr. Manuel Delfín	Havana	Cuba.
Dr. J. B. De Houx	Port au Prince	Haiti.
Dr. George Trousseau	Honolulu	Hawaii.
Dr. Clarke	Santa Cruz	Jamaica.
Dr. Kalmer	St. Croix	Leeward Islands, W. I.
Dr. J. Carreau	Point à Pitre	Guadeloupe, F. W. I.
Dr. Enecon Mora	Quezaltenango	Guatemala.
Dr. Domingo Orvañanos	City of Mexico [Chavarria 25]	Mexico.
Dr. Montenegro	Leon	Nicaragua.
Dr. José Arechavaleta	Montevideo	Uruguay.
Dr. Calixto Gonzáles	Caracas	Venezuela.

SECTION ON HYGIENE, CLIMATOLOGY AND DEMOGRAPHY.

[Abstracts received too late for publication.)

No. 651 "The Climate of Jamaica," by Dr. J. C. Phillippo, Kingston, Jamaica.

No. 652. "Les Mesures Prophylactiques Contre les Epidémies," by Dr. J. B. Da Lacerda, Rio de Janeiro, Brazil.

No. 653. "Practical Measures in the Prevention of Tuberculosis," by Lawrence F. Flick, M. D., Philadelphia, Pa.

No. 655. "Apuntes Sobre la Patologia del Departmento Fluvial de Loreto," by Dr. Leonidas Arendaño, Lima, Peru.

No. 656. "Ojeada Retrospectiva Sobre la Organizacion de la Sanidad en los Ejercitos Españoles," by Dr. Felix Estrada y Catoyra, Havana, Cuba.

No. 657. "The Climate of Western North Carolina, with a Consideration of the Relative Value of High and Medium Altitudes in the Treatment of Pulmonary Tuberculosis," by Karl von Ruck, M. D., Asheville, N. C.

No. 658. "The Climate of the Santa Cruz Mountains," by James Henry Clark, M. D., Jamaica, W. I.

No. 659. "On the Early Detection and Seasonable Climatic and other Treatment of Phthisis," by Charles Denison, M. D., Denver, Col.

No. 660. "The Distribution of Disease by Isthmian Practice, or the Direct Responsibility of the Republic of Colombia, S. A., in the Burial and Disinterring of the Dead on the Isthmus of Panama," by Wolfred Nelson, M. D., New York City, N. Y.

No. 661. "The Three Climates of Jamaica, B. W. I., Its Coast or Tropical—Temperate and Mountain Climates. Jamaica, considered as a Winter Island for Health," by Wolfred Nelson, M. D., New York City, N. Y.

No. 662. "A Brief Consideration of Elephantiasis Arabum, as observed in the Samoan Islands," by John C. Wise, M. D., Washington, D. C.

No. 663. "On the Climatology of Egypt," by Dr. Grant (Bey), Cairo, Egypt.

No. 664. "Hygiene and Demography of Jamaica," by Dr. James Cecil Phillippo, Kingston, Jamaica.

No. 665. "The Need of Research in Preventive Medicine," by J. M. Postle, M. D., Hinckley, Ill.

No. 666. "The Effect of Advanced Civilization on Disease," by W. J. Moody, M. D., Plainfield, Iowa.

No. 667. "Necessary Laws that Should be Enacted by the Several States by which Municipal Health Authorities may be enabled to Control Infectious Diseases."
[Discussion.]

No. 668. "The Cause and Prevention of Diphtheria."
[Discussion.]

No. 669. "The Limitation and Prophylaxis of Tuberculosis."
[Discussion.]

No. 670. "The Role of Municipal Sanitation in the Limitation and Eradication of Yellow Fever."
[Discussion.]

No 671. "On the Climatology of Mesopotamia," by John Sundberg, M. D., United States Consul, Bagdad, Asiatic Turkey.

No. 672. "On the Climatology of Puerto Rico," by Pedro José Salicrup, Secretary of the Section, New York City, N. Y.

No. 673. Formal Address, by Albert L. Gihon, M. D., Medical Director United States Navy, Navy Hospital, Washington, D. C.

SECTION ON MARINE HYGIENE AND QUARANTINE.

HONORARY PRESIDENTS:

Dr. Lino Alarco, Lima, Peru; Dr. Henry B. Baker, Lansing, Mich.; Dr. Cardeñas, Managua, Nicaragua; Dr. J. J. Cornilliac, St. Pierre, Martinique, F. W. I.; Dr. Felix Formento, New Orleans; Dr. H. B. Horlbeck, Charleston, S. C.; Lieut. Col. Amalio Lorenz, Sub-inspector of 2nd class Spanish Navy, Havana; Dr. F. Montizambert, Quebec, Canada; Dr. Francisco Nuñez, St. Tecla, Salvador; Dr. Juan Ortego, Guatemala City, Guatemala; Dr. Joseph Y. Porter, Jacksonville, Fla.; Dr. John Pringle, Kingston, Jamaica; Dr. Juan J. Unoa, San José, Costa Rica; Dr. O. Paquin, Lebanon Springs, Mo.

EXECUTIVE PRESIDENT:

Dr. Walter Wyman, Surgeon General U. S. Marine Hospital Service, Washington, D. C.

SECRETARIES:

Dr. S. T. Armstrong (English-Speaking), 166 W. 54th St., New York, N. Y.

Dr. G. M. Guitéras (Spanish-Speaking), U. S. M. H. S., Washington D. C.

Dr. Emelio R. Coni [Tacuari 252]	Buenos Aires	Argentine Republic.
Dr. Luis Pierola	La Paz	Bolivia.
Dr. José L. de Magalhães	Rio de Janeiro,	U. S. of Brazil.
Dr. J. J. Cassidy	Toronto	Canada.
Dr. Manuel Delfín [Maloja 4]	Havana	Cuba.
Dr. Gabriel I. Castenado [Calle 13, núm. 181]	Bogota	Republic of Colombia.
Dr. José M. Castro	Limon	Costa Rica.
Dr. D. E. Guesde	Point à Pitre	Guadeloupe, F. W. I.
Dr. Cárlos Padilla	Guatemala City	Guatemala.
Dr. George Herbert	Wailuku Maui	Hawaii.
Dr. E. Flint	Rivas	Nicaragua.
Dr. A. E. Edwards	Antigua	Leeward Islands, W. I.
Dr. Elias Regules	Mentevideo	Uruguay.
Dr. Gerónimo A. Blanco	Caracas	Venezuela

SECTION ON MARINE HYGIENE AND QUARANTINE.

[Abstracts received too late for publication.]

No. 701. Formal Address, by Walter Wyman, M. D., Executive President of the Section, Surgeon General of the United States Marine Hospital Service, Washington, D. C.

No. 701*a*. The Hygiene of Vessels, Commercial and Naval, including the Question of Ventilation, Heating, Sanitary Arrangements, the Disposal of Cargo so as to Facilitate Disinfection, Steam Disinfection, Food Supply, etc.
(Discussion Opened by Dr. John J. Cassidy, Ontario, Canada.)

No. 702. "Epidemic and Exotic Diseases Propagated by Shipping. What Diseases Should be Quarantined. Responsibility of Nations for Epidemics; India for Cholera, South America for Yellow Fever. Can a Feasible Plan be Devised to Totally Exterminate Cholera? International Intervention to Prevent the Propagation of Cholera or other Epidemic Diseases by Pilgrimages or Immigration."
(Discussion Opened by Wolfred Nelson, M. D., New York City, N. Y.)

No. 703. "International Uniformity in Quarantine Regulations."
(Discussion Opened by Dr. Juan J. Ulloa, San Jose, Costa Rica.)

No. 704. "The Medical Officers of Passenger Vessels; Methods for their Selection, Duties, etc."
[Discussion.]

No. 705. "The Vital Statistics of Seamen and Firemen. The Question of the Medical Examination of Crews Preparatory to Shipping.
[Discussion.]

No. 706. "The Supervision of Vessels by Government Medical Inspectors at Ports of Arrival and Departure. Code of Rules for Handling an Epidemic Disease that Breaks out on Shipboard. Disinfection of Passengers and Crew During a Voyage. Location and Arrangement of Ship's Hospitals."
[Discussion.]

No. 707. "Arrangement of Detail and Equipment of Quarantine Stations: *a*, Inspection Stations; *b*, Local Quarantine Stations; *c*, Refuge Stations. Methods for Handling Infected or Suspected Vessels. Interstate and Inland Quarantine. Sanitary Cordons; Camps of Refuge; Camps of Probation. Recent Improvements in Hospitals for Infectious Diseases. Railroad Inspection and Quarantine. Length of Time Vessels Should be Held in Quarantine. Conditions that Should Determine Proclamation of Quarantine Against a Country."

[Discussion.]

No. 708. "Under what Requirements may Passenger Traffic be Carried on Between a Port Infected with Yellow Fever and a Southern Port of the United States During the Summer with the Least Obstruction to Such Traffic."

[Discussion.]

No. 709. "What Merchandise Should be Considered as Requiring Treatment if Shipped from a Port or Place infected with Cholera, Yellow Fever or Small-pox?"

[Discussion.]

No. 710. "Methods of Disinfection: *a*, Persons; *b*, Baggage; *c*, Cargoes; *d*, Vessels. Recent Improvements in Quarantine Appliances; Steam Chambers; Sulphur Furnaces. Liquid Sulphur Dioxide as a Disinfectant. Treatment of Ballast Water; Solid. What Time Should an Infected Vessel be Detained in Quarantine? *a*, For the Cholera; *b*, For Small-pox; *c*, For Typhus Fever; *d*, For Plague; *e*, For Yellow Fever. Methods of the Disposal of the Bodies of those that Die While in Quarantine."

[Discussion.]

Papers 701 to 710, inclusive, transferred to 674 *et. seq.*

SECTION ON DISEASES OF THE MIND AND NERVOUS SYSTEM.

HONORARY PRESIDENTS:

Dr. Jorge Diaz Albertina, Havana, Cuba; Dr. Juan C. Castillo, Lima, Peru; Dr. C. G. Comegys, Cincinnati; Dr. F. X. Dercum, Philadelphia; Dr. J. T. Eskridge, Denver; Dr. Orpheus Everts, College Hill, Ohio; Dr. Juan N. Govantes, City of Mexico, Mexico; Dr. Allen McLane, Hamilton, New York; Dr. Wm. A. Hammond, Washington; Dr. P. O. Hooper, Little Rock, Ark.; Dr. Henry M. Hurd, Baltimore; Dr. J. G. Kiernan, Chicago; Dr. J. A. McBride, Wauwatosa, Wis.; Dr. Chas. K. Mills, Philadelphia; Dr. S. Weir Mitchell, Philadelphia; Dr. Moncorvo, Rio de Janerio, U. S. Brazil; Dr. J. J. Putnam, Boston; Dr. E. C. Seguin, New York; Dr. E. C. Spitzka, New York, Dr. G. Isaac Ugarte, Santiago, Chile; Dr. Sam'l Weber, Boston; Dr. D. R. Brower, Chicago; Dr. Barney Sachs, New York City; Dr. Graeme M. Hammond, New York City; Dr. M. Allen Star, New York; Dr. Landon Carter Gray, New York City; Dr. Harold N. Moyer, Chicago; Dr. J. B. Andrews, Sup't Buffalo State Hospital, Buffalo, N. Y.; Dr. Chas. L. Dana, 50 W. 46th Street, New York City; Dr. P. R. Thombs, Sup't State Hospital for Insane, Pueblo, Colo.; Dr. H. C. Wood, 1925 Chestnut St., Philadelphia, Pa.

EXECUTIVE PRESIDENT:

Dr. C. H. Hughes, 500 N. Jefferson Avenue, St. Louis, Mo.

SECRETARIES:

A. B. Richardson (English-Speaking),	Columbus, Ohio.	Dr. M. G. Echeverria (Spanish-Speaking),	Key West, Fla.
Dr. Meléndezy Cabreá [Hospicio San Buenaventura]	Buenos Aires		Argentine Republic.
Dr. Nicolas Hortiz	La Paz		Bolivia.
Dr. Cárlos Eires	Rio de Janeiro		U. S. of Brazil.
Dr. Stephen Lett	Guelph		Canada.
Dr. Plaido	Kingston		Jamaica, W. I.
Dr. Pablo García Medina [carrera 8, núm. 277]	Bogota		Republic of Colombia.
Dr. Emiliano Nuñez [Galiano 19]	Havana		Cuba.
Dr. José Azurdia	Guatemala City		Guatemala.
Dr. George Herbert	Wailuku Maui		Hawaii.
Dr. Secundino E. Sosa [Hospital de Mujeres Dementes]	City of Mexico		Mexico.
Dr. Pellais	Leon		Nicaragua.
Dr. Francisco Soca [Florida 90]	Montevideo		Uruguay.
Dr. Hemiterio Formez	Merida		Venezuela.

SECTION ON DISEASES OF THE MIND AND NERVOUS SYSTEM.

[Abstract received too late for publication.]

No. 801*a*. Formal Address, by C. H. Hughes, M. D., Executive President of the Section, St. Louis, Mo.

No. 801. "The Gangliated Nervous System and Some of its Diseases," by Chas. K Mills, M. D., Philadelphia, Pa.

No. 802. Paper, by William A. Hammond, M. D., Washington D. C.

No. 803. "The Traumatic Psychoneurosis, its Relations to Paronoia, Epilepsy and Paretic Dementia," by J. G. Kiernan, M. D., Chicago, Ill.

No. 804. Paper, by Theo. Diller, M. D., Pittsburg, Pa.

No. 805. Paper, by E. C. Seguin, M. D., New York City.

No. 806. "The Urine in Sexual Neurasthenia," by Chas. L. Dana, M. D., New York City.

No. 807. "Suppurative Meningitis and Myelitis with Exhibition of Specimens," by Graeme M. Hammond, M. D., New York City.

No. 808. "The Disease of Inebriety and its Treatment," by T. D. Crothers, M. D., Hartford, Conn.

No. 809. "Chorea," by Charles Henry Brown, M. D., New York City.

No. 810. "Study of the Temperature in Twenty-five Cases of General Paralysis of the Insane," by Frederick Peterson, M. D., New York City.

No. 811. "The Present Status of Infantile Cerebral Palsies," by Frederick Peterson, M. D., New York City.

No. 812. "The Successful Management of Inebriety without Secrecy in Therapeutics," by C. H. Hughes, M. D., St. Louis, Mo.

No. 813. "Erotopathia, Morbid Erotism," by C. H. Hughes, M. D., St. Louis, Mo.

No. 814. "The Medical Treatment of Insanity," by Edward C. Mann, Brooklyn, N. Y.

No. 815. "Address of Welcome," (in Spanish), by Wm. A. Hammond, M. D., Washington, D. C.

No. 816. "Where the New-born Baby Learned to Suck," by C. A. F. Lindorme, M.D., Atlanta, Ga.

No. 817. "The Treatment of Nervous Diseases in Sanitariums," by Jas. K. King, M. D., Watkins, N. Y.

No. 818. "The Influence of Alcohol upon the Human Powers and Constitution," by T. L. Wright, M. D., Bellefontaine, Ohio.

No. 819. "The Treatment of Cerebral Hemorrhage," by D. R. Brower, M. D., Chicago, Ill.

No. 820. "Neuro-Angio Paralysis and its Relation to Paretic Dementia," by Frank C. Hoyt, M. D., Clarinda, Ia.

No. 822. Paper by S. Weir Mitchell, M. D., Philadelphia, Pa.

No. 823. Paper by E. C. Spitzka, M. D., New York City, N. Y.

No. 824. Paper by O. T. Sherman, M. D., Boston, Mass.

No. 825. "Civil Service in American Hospitals for the Insane," by S. V. Clevenger, M. D., Chicago, Ill.

No. 826. "La Renguera," by Dr. Daniel Guiterrez y Arango, Call, Cauca, Columbia.

No. 827. "Paralisis Espastica Cerebral de los Adultos," by Dr. Manuel Carmona y Valle, City of Mexico, Mexico.

No. 828. "On the Prognosis of 'Railway Spine,'" by F. X. Dercum, M. D., Philadelphia, Pa.

No. 829. "The Nervous Symptoms of Storms," by Curran Pope, M. D., Louisville, Ky.

No. 830. "A Peculiar Type of Vaso-motor Neurasthenia (The Pulsating Disease) with Report of and Operation for the Same," by Chas. L. Dana, M. D., New York City, N. Y.

No. 831. "Curability of Inebriety," by J. G. Reed, M. D., Elmwood Place, Ohio.

No. 832. "Nutrition Against Stimulation," by W. H. Maxon, M. D., St. Louis, Mo.

SECTION ON ORAL AND DENTAL SURGERY.

HONORARY PRESIDENTS:

Dr. José Joaquin Aguirre, Santiago, Chile; Dr. R. R. Andrews, Boston; Dr. E. A. Baldwin, Chicago; Dr. George Beers, Montreal, Canada; Dr. S. B. Brown, Fort Wayne; Dr. Emegdio Carillo, City of Mexico, Mexico; Dr. Wm. Carr, New York; Dr. H. B. Catching, Atlanta; Dr. Geo. J. Fredericks, New Orleans; Dr. Ricardo Gordon, Matanzas, Cuba; Dr. J. H. Hatch, San Francisco; Dr. A. O. Hunt, Iowa City; Dr. Louis Jack, Philadelphia; Dr. H. J. McKellops, St. Louis; Dr. Francis Peabody, Louisville; Dr. J. C. Storey, Dallas; Dr. J. Taft, Cincinnati; Dr. J. B. Willmot, Toronto, Canada.

EXECUTIVE PRESIDENT:

M. H. Fletcher, M. D., D. D. S., 65 W. 7th St., Cincinnati, O.

SECRETARIES:

Dr. E. S. Talbot (English-Speaking), 125 State St., Chicago, Illinois.	Dr. Ramón Campuzano (Spanish-Speaking), 822 N. 25th Street, Philadelphia, Pa.

Dr. N. Etchepareborda [Tacuari 355]	Buenos Aires	Argentine Republic.
Dr. Wilson	La Paz	Bolivia.
Dr. Benicio de Sá	Rio de Janeiro	U. S. of Brazil.
Dr. Luke Teskey	Toronto	Canada.
Dr. Guillermo Vargas Parédes [Carrera 7, núm. 638]	Bogota	Republic of Colombia.
Dr. J. Luis Estrada	Guatemala City	Guatemala.
Dr. George Herbert	Wailuku Maui	Hawaii.
Dr. Rafael Rico [Escuela de Med.]	City of Mexico	Mexico.
Dr. A. Lacayo	Granada	Nicaragua.
Dr. Andres G. Weber [Corrales 1]	Havana	Cuba.
Dr. Angel Guerra	Montevideo	Uruguay.

SECTION ON ORAL AND DENTAL SURGERY.

[No abstracts furnished.]

No. 0. Dr. Fletcher's address.

No. 1. "Pulpless Teeth," by Dr. George Evans, New York City, N. Y.

No. 2. "Preparatory Knowledge for the Study and Qualifying Education for the Practice of Specialties in Medicine and Surgery," by Dr. J. L. Williams, Boston, Mass.

No. 3. "Teeth in Evolution as Related to Human Degeneracy," by Dr. Jas. Kiernan, Chicago, Illinois.

No. 4. "The Relations of Spyhilis to Dentistry," by Dr. G. Frank Lydston, Chicago, Illinois.

No. 5. "Hygiene of the Mouth," by Dr. Charles F. Francis, New York.

No. 6. "The Discovery of the Anaesthetic Power of Ether," by Dr. William H. Potter, Boston, Mass.

No. 7. "Principles Underlying the Regulating of the Human Teeth," by Dr. E. A. Bogin, New York.

No. 8. "Dental Medication and Experiments with Cases," by Dr. Vida A. Latham.

No. 9. "A Method of Making Photo-Micrographs with the Higher Powers of the Microscope by an Instantaneous Process and Demonstrating with Slides made by this Method the Process of Calcification of the Dentine," by Dr. R. R. Andrews.

No. 10. "History of the Surgical Engine and its Demonstration," by Dr. Bonwell.

No. 11. "Development of the Vault," by Dr. Eugene S. Talbot.

No. 12. "The Relation of Certain Neuroses to the Teeth," by Dr. Harrold Moyer.

No. 13. "Hair Lip," by Dr. A. Wilks Smith, Richmond Ky.

No. 14. "Pyorrhoea Alviolaris," Dr. Williams Donnelly, D. D. S., Washington, D. C.

No. 15. "Hereditary Stamp," by Prof. J. B. Hodgkin, D. D. S., Washington, D. C.

SECTION ON MEDICAL PEDAGOGICS.

HONORARY PRESIDENTS:

Dr. Wm. C. Dabney, University of Virginia, Va.; Dr. L. B. Durocher, Montreal, Canada; Dr. Fife Fowler, Toronto, Canada; Dr. Walter B. Geike, Toronto, Canada; Dr. J. W. Holland, Philadelphia; Dr. Felipe Hartman, Santiago, Cuba; Dr. Geo. A. Ketchum, Mobile; Dr. Fernando Lataste, Santiago, Chile; Dr. Jos. M. Mathews, Louisville; Dr. Thos. Menees, Nashville; Dr. Jas. H. Ethridge, Chicago; Dr. James W. McLane, New York; Dr. Thos. Opie, Baltimore; Dr. Charles Inslee Pardee, New York; Dr. John Parmenter, Buffalo; Dr. R. C. Stockton Reed, Cincinnati; Dr. Dudley S. Reynolds, Louisville; Dr. Juan M. Rodriguez, City of Mexico, Mexico; Dr. Francisco Rosas, Lima, Peru; Dr. Geo. L. Sinclair, Halifax, Nova Scotia; Dr. Victor C. Vaughan, Ann Arbor, Mich.; Dr. Adam H. Wright, Toronto, Canada.

EXECUTIVE PRESIDENT:

Dr. J. Collins Warren, 58 Beacon Street, Boston, Mass.

SECRETARIES:

Dr. Charles L. Scudder (English-Speaking), 94 Charles Street, Boston, Mass.	Dr. Wm. F. Hutchinson (Spanish-Speaking), 159 High St., Providence, R. I.
Dr. Susini [Piedad 1012] . . . . . Buenos Aires	Argentine Republic.
Dr. Francisco Hurri . . . . . La Paz	Bolivia.
Dr. Cárlos de Vasconellos . . . . . Rio de Janeiro	U. S. of Brazil.
Dr. T. S. Wallbridge . . . . . Georgetown	British Guiana.
Dr. Fernando Gonzalez del Valle . . . . . Havana	Cuba.
Dr. Jorge Vargas [Calle 13, núm. 109 . . . . . Bogota	Republic of Colombia.
Dr. Cárlos Duran . . . . . San José	Costa Rica.
Dr. Samuel Gonzalez . . . . . Guatemala City	Guatemala.
Dr. Walters . . . . . Lehui Kaui	Hawaii.
Dr. Luis E. Ruiz [San Pedro y S. Pablo 14] . . . . City of Mexico	Mexico.
Dr. Alejandro Bolaños . . . . . Masaya	Nicaragua.
Dr. Angel Conaveris [18 de Julio] . . . . . Montevideo	Uruguay
Dr. Caracciolo Parra . . . . . Merida	Venezuela.

SECTION ON MEDICAL PEDAGOGICS.

No. 901(a).

MEDICAL EDUCATION IN THE UNITED STATES.

By J. Collins Warren M. D.,
Boston, Mass.

Early history of the condition of teaching previous to reform; the changes in the past twenty-five years; the new system; medical practice acts; preliminary education; laboratory work; study of pathology; clinical instruction; control of hospitals by the faculty endowments.

—o—

No. 901. "A Consideration of the Position of Bacteriology in a Course of Medical Study; its Importance and Growth of Late Years, together with some Account of the Development of the Department in Harvard Medical School," by Harold C. Ernst, M. D., Boston, Mass.

—o—

No. 902.

THE IMPORTANCE OF PHYSIOLOGICAL CHEMISTRY AS A PART OF MEDICAL EDUCATION.

By R. H. Chittenden, M. D.,
New Haven, Conn.

By physiological chemistry is meant something more than the mere application of chemical analysis to a determination of composition. This, to be sure, is important, but more valuable still is a proper understanding of the processes or lines of functional activity going on in the organs and fluids of the body. There is hardly a question either in physiology or in the science or practice of medicine which does not draw to a greater or less extent upon physiological chemistry for its solution. We must remember that our knowledge of the composition of the tissues, organs and fluids of the body is derived entirely from chemical study and investigation.

The great progress made of late years in our knowledge of the various digestive juices of the body, of their mode of action, of the character of the products resulting from

the digestion of the various classes of food-stuffs, of the conditions favorable and unfavorable to ferment action, these and many other things connected with the study of digestion in its broadest sense have all been accomplished by long continued experimentation in the domain of physiological chemistry; results that have not only helped to give us broader and clearer ideas of the physiology of digestion, but have made possible much of the advance in the diagnosis and treatment of disorders of the alimentary tract.

Take from us our knowledge of the chemical composition of muscle and nerve tissue and of the characteristics of the various substances entering into their structure and what a blank would remain. Consider the importance of our ever-growing knowledge regarding the chemical changes going on in the two master tissues of the body with their influence on heat production and on proteid and other forms of metabolism. Then, too, the whole broad question of nutrition in general with its bearing on health and disease, the study of the urine and faeces, with the rich results such study affords as a means of diagnosis, the study of the liver and its secretion, the bile, all are in great part chemical problems, partial solution of which has already afforded results of inestimable value.

Then consider the part physiological chemistry has played in bringing about our present understanding of the manner in which micro-organisms act in the animal body, with its bearing upon the whole question of infectious diseases. These few illustrations give us some idea of the important position physiological chemistry holds with reference to medicine, and lends emphasis to the statement that in every medical school of the land there should be a well-appointed laboratory for the practice and study of physiological chemistry in every direction bearing on medical science.

——o——

No. 903.

A CONTRIBUTION TO THE STUDY OF MEDICAL EDUCATION IN THE UNITED STATES.

By Bayard Holmes, B. S., M. D.,
Chicago, Ill.

An attempt is made to give a brief review of the origin of the American medical colleges, showing that they sprang from a desire on the part of ambitious medical men to advance in this way their own financial interests. This is shown to have been the case especially in a great number of the more recent schools.

The medical schools of the United States are divided into three classes: (1) Those that are under the exclusive control and support of State universities; (2) those that are under the control of university corporations or that maintain a nominal connection with such corporations, and (3) those that maintain no relations whatever to other educational organizations. The advantages and disadvantages of each class are considered separately. Illustrative examples of courses of study and a diagram showing the amount of instruction, are presented.

The tendencies of development are shown to have been as follows: (1) Medical theories; (2) medical theories plus demonstration of practice in hospitals, dispensaries and

clinics; (3) the application of the best educational methods in studying the theories of medicine and the same methods in the study of clinical material. The schools of the United States are now undergoing development in this last particular by the adoption of laboratory methods of study in all departments of anatomy, pathology and clinical investigation.

The needs of medical schools are shown to lie in improved methods of teaching rather than in better facilities for clinical demonstration; in new laboratories for individual and class instruction rather than in hospitals or laboratories for original research; in paid teachers of physiology, pathology and clinical chemistry rather than in the extension of surgery, medicine and obstetrics. Suggestions are made by means of model courses of study, and by means of rules designed to govern examinations and methods of measuring work. The possibilities and limitations of some of these methods are illustrated by the exhibition of class work actually accomplished.

The relation of medical schools to hospitals is shown to be less intimate than the requirements of education and the needs of the patients demand.

The position of medical courses in all but a few universities where the control of the medical school is absolutely in the hands of the university, is shown to be less intimate and less rational than that of other departments in the following respects:

(1) Admission to the medical school is allowed to the untrained and uncultured.

(2) The courses in the medical school do not count in the elective courses for the bachelor's degree or the doctor's degree, save in a few schools.

(3) There are no fellowships and no scholarships offered in medicine.

(4) The relation of the professors in the medical schools to the trustees and to the treasury of the university are not upon the same basis as that of professors in other post-graduate departments.

Relief is to be expected only in the endowment of medical schools either by private individuals or by the State. It is urged that the State should manifest as much interest in the health and food of man as in the health and food of hogs and cattle. Attention is called to the fact that at least $750,000 is annually expended by the general government on the agricultural experiment stations alone, while not a dollar is spent in medical education. Attention is called to the advantages of State university medical schools in their ability to co-operate with free hospitals supported by the state, the county, and the city, with state boards of health and experiment stations, with the administration of charities, with the administration of tenement and factory inspection, with the reformatory and penal institutions, and with all the many other varied activities of the general and local governments.

—o—

No. 904.

METHODS OF MEDICAL EDUCATION.

By Victor C. Vaughan, M.D.,
Ann Arbor, Mich.

Medical education should consist largely of laboratory demonstration and clinical teaching. The course should extend through not less than four years. The first two

years should be given to the sciences of chemistry, anatomy, bacteriology, physiology, physiological chemistry, electro-therapeutics, materia medica and hectology. These subjects should be taught by laboratory methods. The students should do, and not be content with seeing and hearing.

The third year should be devoted to demonstration courses in surgery, auscultation, percussion and other means of diagnosis, obstetrics, gynecology, ophthalmology, otology, laryngeology and the medical uses of electricity. The student should not only have practice in bandaging and fracture dressing, but should make amputations on the cadaver and laparotomies, and other operations on the lower animals. The third year student should also attend clinics.

The fourth year should be devoted to clinical and hospital work.

——o——

No. 906.

THE AIMS AND METHODS OF MEDICAL EDUCATION.

By Wm. C. Dabney, M. D.,
University of Virginia, Va.

The subject will be considered under the following headings:

First. The requisites for persons entering upon the study and practice of medicine:

(1) A sufficient development of the faculty of observation and the reasoning faculty, to enable the person to judge of cause and effect and to draw proper conclusions from ascertained facts.

(2) A knowledge of the work done by others directly or indirectly connected with medical matters.

(3) The ability and willingness to work.

(4) A just appreciation of the extent and character of the work which they undertake and the responsibility which they assume.

Second. The best means of allowing these requisites:

(1) The preliminary studies calculated to develop the faculty of observation.

(2) The preliminary studies calculated to develop the reasoning faculties.

(3) The order in which the various branches of medicine should be studied.

(4) The time which should be given to laboratory work and lectures each day.

(5) The value and importance of the didactic lectures and of daily recitations.

(6) The objects and methods of clinical instruction.

(7) The importance of a high standard graduation in medical colleges with especial reference to the character of the work done by the graduate in after life.

——o——

No. 907. "Methods of Instruction in Clinical Medicine," by F. C. Shattuck, M. D., Boston, Mass.

(Abstract not furnished.)

No. 908. LATENT POWER OF SOME AMERICAN MEDICAL IDEAS.

By Dr. Ephraim Cutter,
New York City.

REALIZED.

(1) Anaesthena.

UNREALIZED.

(2) Food as a cause of disease.
(3) Treatment of sclerosis.
(4) Treatment of fatty fibroid degenerations.
(5) Treatment of gravelly diseases.
(6) New physical sign of the pretubercular state.

—o—

No. 909. "How to Teach the Cæsarian and Porro Operations in the Class-room," by E. Gustav Zinke, M. D., Cincinnati, O.
(Demonstration.)

No. 910. "Demonstration of the Physiological Action of the Heart," by J. P. Sawyer, M. D., Cleveland, O.
(Abstract not furnished.)

No. 911. "Demonstration of Methods of Teaching Surgery and Anatomy by Free-hand Drawing with Colored Crayons," by M. H. Richardson, M. D., Boston, Mass.
(Abstract not furnished.)

No. 913. "Relation of Biology to Medical Education," by W. T. Sedgwick, M. D. Boston, Mass.
(Abstract not furnished.)

No. 914. "The Status of the 'Preceptor' in Modern Medical Education."
(Informal Discussion.)

No. 916. "Which of the Collateral Sciences Ought to be Eliminated from the Medical Curriculum and which of Them ought to be Embraced in the Required Preliminary Studies?"
(Informal Discussion.)

No. 917. "On the Feasibility of Arranging a Practically Uniform Course of Medical Instruction and Requirements in the Various American Countries and Colonies."

(Informal Discussion to be Participated in more Particularly by the Official Delegates of the various Governments and of the various Medical Schools.)

SECTION ON MEDICAL JURISPRUDENCE.

HONORARY PRESIDENTS:

Dr. Juan José R. de Arrellano, City of Mexico, Mexico; Dr. Manuel C. Barrios, Lima, Peru; Hon. Wilder L. Burnap, Burlington, Vt.; Dr. Chas. F. Chandler, New York; Hon. J. D. B. DeBow, Nashville, Tenn.; Dr. Wenceslao Diaz, Santiago, Chile; Dr. R. Ogden Doremus, New York; Hon. Lucelius A. Emery, Brunswick, Me.; Hon. M. C. George, Portland, Oregon; Dr. Alexander E. McDonald, New York; Dr. Perry H. Millard, St. Paul, Minn.; Hon. Calvin E. Pratt, Brooklyn, N. Y.; Dr. Joaquin Quiles, Havana, Cuba; Dr. H. J. Launders, Toronto, Canada; Dr. A. N. Bell, Brooklyn, N. Y.; Dr. Hon. Clark Bell, New York, N. Y.; Dr. Maurice J. Lewi, New York.

EXECUTIVE PRESIDENT:

Dr. Alonzo Garcelon, Lewiston, Maine.

SECRETARIES:

Dr. Harold N. Moyer (English-Speaking), 834 Chicago Opera House, Chicago, Ills.		Dr. Plutarco Ornelas, San Antonio, Texas.
Dr. Podesta [Cuyo 424]	Beunos Aires	Argentine Republic.
Dr. Francisco Harri	La Paz	Bolivia.
Dr. A. J. de Lonza Lima	Rio de Janeiro	U. S. of Brazil.
Dr. N. A. Powell	Toronto	Canada.
Dr. Eduardo, Fla [Reina 105]	Havana	Cuba.
Dr. Leoncio Barrets [carrera 7, núm. 397]	Bogota	Republic of Columbia.
Dr. Alberta Molina	Gautemala City	Gautemala.
Dr. Walters	Lehui Kaui	Hawaii.
Dr. Nicolas R. de Avellan [consejo de salubridad]	City of Mexico	Mexico.
Dr. M. J. Barrios	Rivas	Nicaragua.
Dr. José R. Romen [Plaza de Cogancha 38]	Montevideo	Uruguay.
Dr. Francisco Choparro	Merida	Venezuela.

SECTION ON MEDICAL JURISPRUDENCE.

[Abstracts received too late for publication.]

No. 951. "Medical Jurisprudence in its Relations to Dipsomania," by Edward C. Mann, M. D., Brooklyn, N. Y.

No. 952. "La Antropologia Criminal de Puerto Rico," by Dr. Jose Rodriquez Castro, Puerto Rico.

No. 953. "Present Status of Criminal Anthropology," by G. Frank Lydson, M. D., Chicago, Ill.

No. 954. "Hypnotism: Does it Menace Public Weal?" by Fred. C. Valentine, M. D., New York City, N. Y.

No. 955. "The Doctor in Court," by D. R. Wallace, M. D., Terrell, Texas.

No. 956. "The Medico-Legal Aspect of Hypnotism."
[Discussion.]

No. 957. "The Question of Responsibility in the Extirpation of the Uterine Appendages in the Insane and in Minors."
[Discussion.]

No. 958. "The Legal Aspect of Abdominal Section for Penetrating Wounds of the Abdomen."
[Discussion.]

No. 959. "Medical Jurisprudence; its Aims, Importance, Status and Demands for Higher Recognition and Increased Facilities for Instruction by our Institutions of Learning devoted to fitting our Young Men for the Professions of Law and Medicine," by A. Garcelon, M. D., Executive President, Lewiston, Me.
[Formal address.]

SECTION ON RAILWAY SURGERY.

HONORARY PRESIDENTS:

Dr. F. K. Ainsworth, Los Angeles Cal.; Dr. DeWitt C. Bryant, Omaha, Neb.; Dr. J. M. Dinnen, Ft. Wayne, Ind.; Dr. W. G. Galbraith, Omaha, Neb.; Dr. G. L. Hoege, Fostoria, Ohio; Dr. Jabez N. Jackson, Kansas City, Mo.; Dr. Willis P. King, Kansas City, Mo.; Dr. J. B. Murdoch, Pittsburgh, Pa.; Dr. J. B. Murphy, Chicago, Ill.; Dr. A. J. Mullen, Michigan City, Ind.; Dr. G. J. Northrup, Marquette, Mich.; Dr. W. R. Nugent, Oskaloosa, Iowa; Dr. J. W. O'Conner, Denver, Col.; Dr. W. B. Outten, St. Louis, Mo.; Dr. R. Harvey Reed, Mansfield, O.; Dr. C. B. Stemen, Ft. Wayne, Ind.; Dr. A. A. Thompson, Waxahatchie, Texas; Dr. S. S. Thorn, Toledo, O.; Dr. W. S. Weissinger, Hernando, Miss.; Dr. B. F. Wilson, Slater, Mo.; Dr. Geo. W. Griffith, Louisville, Ky.

EXECUTIVE PRESIDENT:

Dr. C. W. P. Brock, Richmond, Virginia.

SECRETARIES:

Dr. E. R. Lewis (English-Speaking), P. O. Box 255, Kansas City, Missouri.

Dr. H. McHatton (Spanish-Speaking), Macon, Ga.

Dr. Pirovano	Buenos Aires	Argentine Republic.
Dr. T. G. Roddick	Montreal	Canada.
Dr. Hernandez	La Paz	Bolivia.
Dr. Francisco C. Guzman	Santiago	Chile.
Dr. Regino Gonzalez, [Cordovanes No. 4,]	City of Mexico	Mexico.
Dr. Juan J. Ortega	Guatemala City	Guatemala.
Dr. Abraham Aparico	Bogota	Republic of Columbia.
Dr. Lucas A. de O. Catta Preta	Rio de Janeiro	U. S. of Brazil.
Dr. Lino Alarco	Lima	Peru.
Dr. José Pugnalin	Montevideo	Uruguay.
Dr. Pedro Maria Garcia	Caracas	Venezuela.

SECTION ON RAILWAY SURGERY.

No. 1091*a*. Formal address by C. W. P. Brock, M. D., Executive President of the Section, Richmond, Va.

No. 1001. "Railway Surgery, as a Branch of the Surgical Art," by E. R. Lewis, M. D., Kansas City, Mo.

No. 1003. "The History of Railway Surgical Organization," by C. B. Stemen, M. D., Ft. Wayne, Ind.

No. 1004. "Hot Water in Contusion of the Bones of the Foot and Ankle," by Geo. Chaffee, M. D., Brooklyn, N. Y.

No. 1005. "Excision of Shaft of Femur following Pathological Fracture," by Alex. J. Mullen, Jr., M. D., Michigan City, Ind.

No. 1006. "Implantation of Senn's De-Calcified Bone. Recovery," by B. F. Wilson, M. D., Slater, Mo.

No. 1006*a*. "The Essential Elements of Ideal Surgery," by B. F. Wilson, M. D., Slater, Mo.

No. 1007. Paper, by T. C. Kennedy, M. D., Shelbyville, Ind.

No. 1008. Paper, by J. N. Warren, M. D., Sioux City, Iowa.

No. 1009. "The Torsion of Arteries for the Arrest of Hemorrhage," by J. B. Murdoch, M. D., Pittsburg, Pa.

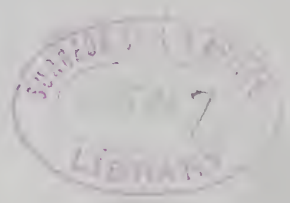
HAND BOOK

....OF

THE FIRST

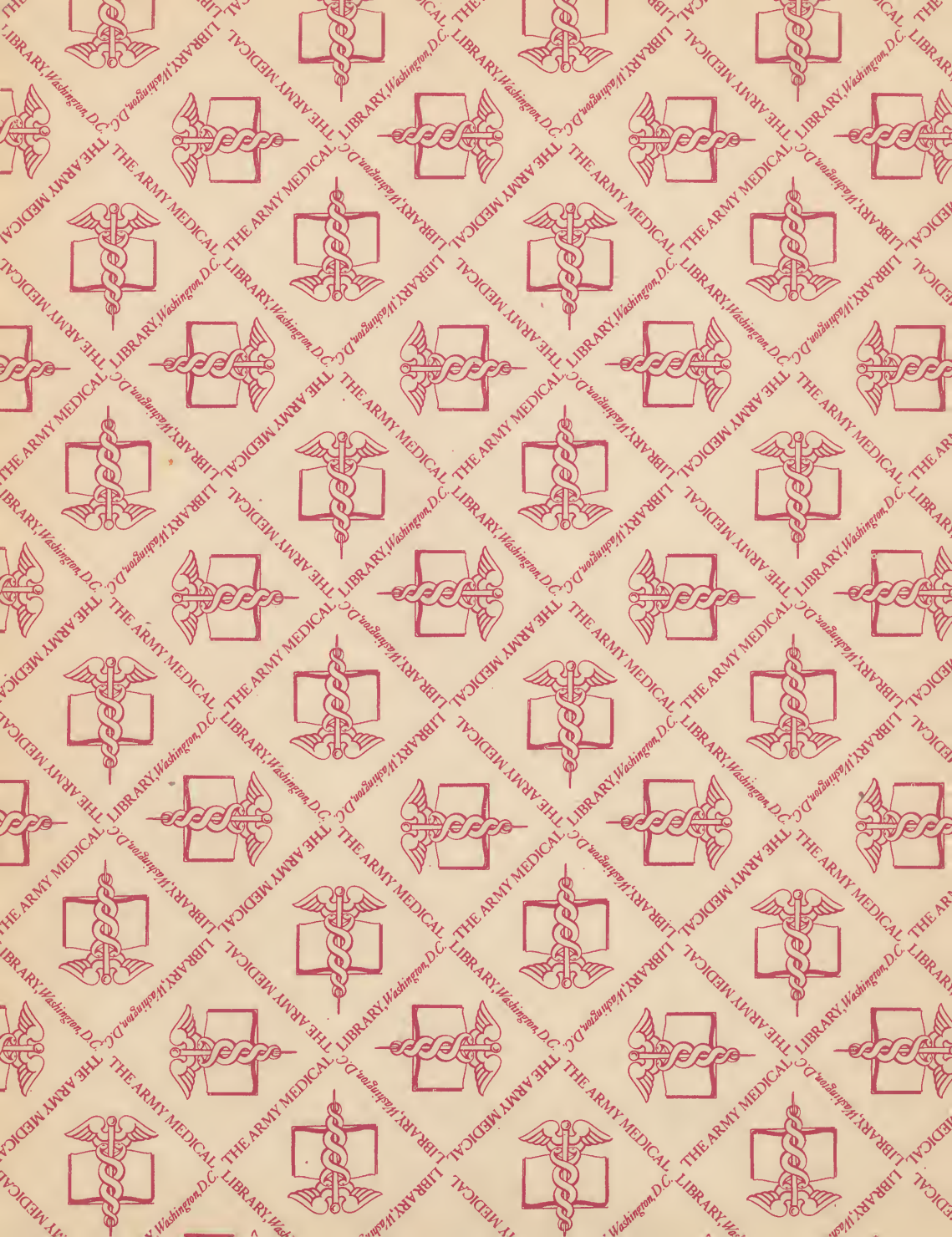
Pan-American Medical Congress

Washington, D. C.,
U. S. A.



September 5, 6, 7 and 8, A. D. 1893.

AVIL PRINTING CO., PHILADA.


THE ARMY MEDICAL LIBRARY, Washington, D.C.

THE ARMY MEDICAL LIBRARY, Washington, D.C.

FEB 1 0 1949

W3 PA396 1893h

24730530R

NLM 05126481 6

NATIONAL LIBRARY OF MEDICINE